

ANNUAL REPORT  
OF  
**THE MINES BRANCH**  
OF THE  
**Department of Lands and Mines**  
OF THE  
PROVINCE OF ALBERTA

**1946**



EDMONTON:  
PRINTED BY A. SHNITKA, KING'S PRINTER  
1947



Edmonton, Alberta,  
February 27, 1947.

TO THE HON. N. E. TANNER,  
*Minister of Lands and Mines.*

SIR:

I herewith submit the report of The Mines Branch for the year ending December 31, 1946.

Respectfully submitted,

JOHN CRAWFORD,  
*Chief Inspector of Mines.*



# ANNUAL REPORT OF THE MINES BRANCH FOR THE YEAR ENDING DECEMBER 31, 1946

(JOHN CRAWFORD, *Chief Inspector*)

The output of coal produced from mines in the Province during the year 1946 was 8,824,455 tons, with a valuation of \$33,197,261. This shows an increase of 1,023,207 tons over the tonnage produced in 1945, which was 7,801,248 tons, and an increase in valuation of \$5,497,928.

Notwithstanding that during the year thousands of man-shifts were lost as a result of many and varied causes, the year 1946 closed with the highest production and valuation record in the history of the Province.

This progressive climb in production over the war years, with a corresponding increase in valuation, indicates that the coal industry of the Province only requires assured markets on a long term basis, to enable it to become one of the most highly efficient and successful industries in Canada.

The disposition of coal during the year was as follows:

	Tons
Sold for consumption in Alberta	1,608,296
Sold for consumption in other Provinces	3,438,285
Sold to the United States	137,271
Sold for shipment to China	37,865
Sold to railroad companies	2,893,207
Used in ship's bunkers	21,770
Used making briquettes	259,123
Used making coke	64,878
Used under colliery boilers	182,095
Used by colliery railroads	1,347
Put to stock	47,032
Put to waste	171,426

The above tonnages include coal lifted from stock and waste heaps, which is not included in the total output.

Of the above output, 1,822,840 tons were produced from 61 strip pits operating in the Province. During the year, production from stripping operations increased by 497,975 tons over the total figure for 1945, which was 1,324,865 tons. This significant increase can be attributed to four main factors, viz.; greater number of strip operations in production, more efficient technique with respect to heavy mechanical equipment, methods of layout, and wider markets for this type of product.

During the year, five shale pits produced 70,688 tons of shale and clay, from which 20,297,280 bricks and 18,162 tons of hollow tile were made. The production of shale and clay has increased by 15,673 tons during the year and the number of bricks made has increased by 1,834,280. A continued increase of hollow tile is also evidenced, amounting to 8,844 tons over the 1945 figure. The above figures indicate that continued progress is being made by the clay products industry.

There were 198 mines producing coal during the year 1946, of which 14 were opened, 41 re-opened, 19 abandoned and 35 closed. At December 31st, 175 mines were in operation.

There were 9,368 men employed during the month of December, this being an increase of 185 over the corresponding month of 1945.

Notwithstanding an increase of 185 men in the industry during the year, the mines were still understaffed and only the co-ordination of effort and co-operation of the working forces, together with the installation of new equipment, made 1946 the record year in production and valuation.

During the year there were 3 first class or mine managers' certificates issued, 12 second class or overmans' certificates, 38 third class or examiners' certificates, 2 mine surveyors' certificates, 2 first class mine electricians' certificates, and 3 second class mine electricians' certificates granted.

In addition to the above, 46 examinations were held throughout the Province for coal miners' certificates of competency and 858 certificates issued to successful candidates. There were also 81 permits as miners and 103 provisional certificates as miners granted.

The Order for issuing of war time emergency certificates as coal miners has been rescinded, and a system of miners' permits introduced. These permits are issued directly by the District Inspectors, which makes for much more flexibility and speed of issue, and enables young men to enter the mines and start work at the coal face much sooner than under the old system. The permit system has now been in effect for nearly a year, and it is found to be working smoothly and efficiently and in the best interests of the industry.

Samples of mine air were taken during the year by the Inspectors and forwarded to the Chemistry Branch of the Department of Mines, Ottawa, for analysis. This has been done in addition to the tests made with the M.S.A. Methane and other gas detectors.

Samples of coal and coal-dust were collected and forwarded to the Research Council of Alberta, Edmonton, for analysis.

All fatal and serious accidents have been investigated by the Inspectors, who also attended the inquests held in their districts, this being in addition to the regular inspection of the mines. All complaints made to the Department were also investigated.

There were 24 prosecutions instituted for contraventions of The Coal Mines Regulation Act, made up as follows: 1 mine manager, 1 owner, 1 timber packer, 13 firebosses, 6 miners, 2 machinemen.

The purchased electrical power by the mines was 46,012,415 k.w. hours, this being an increase of 3,221,762 k.w. hours over 1945.

This significant increase in the use of electricity indicates that the mines of the Province are becoming progressively more electric-mechanized. This is a highly efficient and flexible form of power for use in mines, and as a result of the march of science over the past number of years, electrical apparatus in all its forms comes from the factory equipped with every type of safety and protective device. Only approved types of apparatus are allowed to be used in the mines of the Province, where there is the least liability of hazard. All such equipment must bear the approval plate of the testing authority stating that the apparatus has been tested and is approved for use in dangerous locations. This type of equipment is termed "explosion proof".

Continued progress in the field of installation of new equipment is still going forward in the mines and at a very satisfactory pace. It is praiseworthy to note that those operators introducing new equipment into their mines are co-operating more and more closely

with the officials of The Mines Branch, with a view to securing the highest safety coverage and efficiency in such installations.

New equipment installed in the mines during the year will be found listed under the District Inspectoral reports and the report of the Electrical Inspector.

The trend toward use of protective equipment in the mines is proceeding satisfactorily, there being in use during 1946, 4,898 hard hats, 877 pair of goggles, 268 pair of knee caps, and 2,704 pair of safety shoes.

The number of fatal accidents during the year was 12 as compared with 23 in 1945. This is a decrease of 48%, and equals 1.3 accidents per million tons of coal produced. This figure compares very favourably with the average rate in the United States and Great Britain.

During the year the work of recovery and investigation was completed in the Luscar No. 1 Mine, where an explosion took the lives of seven workmen on May 12, 1945. An inquest into the deaths was held in Luscar on July 3, 4 and 5, 1946, and the verdict rendered was:

"We the undersigned members of the Jury, have come to the conclusion that D. Davies, M. Hluska, William Belek, Mike Zozuk, David Astley, Steve Zayezierski and Peter Zozuk, came to their death in No. 1 Mine West 3 Panel, Luscar Collieries, at about 8:45 a.m., May 12th, 1945, by explosion and suffocation caused by an overheated safety lamp."

Mr. W. G. Heeley, of Calgary, who has been an Inspector of Mines for 18 years, retired on September 12th, 1946.

Mr. Heeley's connection with coal mining in Alberta dates from 1908, and his connection with The Mines Branch began in 1928, thus at the time of his retirement he was the senior District Inspector of Mines in the service.

His long and successful career in coal mining started in the mines at the age of 12. He has been engaged in every type of mine work known to mining science, holding positions in all the classifications from haulage boy to mine manager and Inspector of Mines. His has been a continual advancement in his chosen work, all as a result of his ambition and application.

As a result of his long experience, his services have been called upon in assisting in the work of recovery and investigation in connection with all major mine disasters in the Province during the period of his tenure of office. His genial and understanding nature, ready humour and eagerness to render assistance, added daily to numbers glad to claim friendship with him.

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#### SUMMARY OF INFORMATION COMPILED FROM THE REPORTS OF THE DISTRICT INSPECTORS

(J. A. DUTTON, *Assistant Chief Inspector, Edmonton*)

There were 15 underground mines and 14 strip mines in my Inspectorate during the year. Eight of the underground mines were transferred from Mr. A. B. Hunter's district.

Five new mines were granted permits to commence coal mining operations: No. 1645, Lothian Collieries, Wabamun; No. 1647, R. O.

Johnson & Sons, Grande Prairie; No. 1649, Karl Schon, Moon Lake; No. 1651, C. D. Grubb, Huallen; and No. 1652, Fry & Larson, Seba Beach. In addition to these, a domestic permit was issued authorizing the holder to extract 10 tons of coal for his own use.

Mine No. 1409, formerly Gainford Coal Co., has been taken over by P. Abernathy, and is now registered under the name of Gainford Collieries (1946). Both underground and stripping methods of operation have been planned for the future.

Mine No. 1495, formerly Pembina Collieries, has been taken over by C. Ostertag, and is now operating under the name of Pembina Peerless. A small tippie with storage bins for coal has been erected, and approximately 5,000 tons of coal made ready for extraction.

Mine No. 1496, known as the Bomarang Mine, has been taken over by G. S. Gwilliam. The former owner, Mr. D. J. Gwilliam, was forced to retire from active operations on account of failing health.

Mine No. 1592, formerly Mount Royal Collieries, has been taken over by Donvie Collieries. Screening facilities have been erected at this strip mine, and the new company is looking forward to a large increase in production.

Mine No. 1543, formerly operated by A. J. Buxton of Blue Ridge, has been abandoned. This mine was operated as a strip operation, but owing to the poor quality of the coal it was found unprofitable to continue.

Mine No. 1366, operated by the Beverly Coal Ltd., has changed the method of operation from room and pillar to longwall. A face 400 feet in length was commenced, which was later reduced to 300 feet.

Electric coal cutting machinery has been installed in mines No. 1266 and 1627, operated by Edmonton Coll. Ltd., and Carbondale Coll., Ltd., respectively.

Mine No. 1316, operated by K. Samis, has installed an electrically driven hoist on the surface, replacing a steam driven hoist. Some alterations have been made to the tippie and a small electrically driven rotary screen installed.

Mine No. 1357, operated by the Red Hot Coal Co. Ltd., has driven a new slope from the tippie level to the face of the underground workings, thereby reducing considerably the length of underground haul. The fan for the ventilation of the mine has been moved to the top of a new shaft which has been made.

There were 50 complete inspections made, in addition to visits to the mines for other official purposes.

There were 12 provisional overman's certificates, 19 miners' certificates, 24 provisional miners' certificates, and 39 miners' permits issued during the year.

There were also 37 explosive purchase permits issued.

There was one prosecution instituted and a conviction obtained, for failure to forward monthly returns of production.

There were seven accidents reported to this district office during the year, as required under Section 80 of The Coal Mines Regulation Act.

There were no fatal accidents.

There were no reports of gas ignitions or mine fires.



Generally, over the districts under my charge as a District Inspector of mines, there was no serious labour troubles and the management and staff of every mine have given me their fullest co-operation.

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## EDMONTON-CAMROSE INSPECTION DISTRICT

(A. B. HUNTER, *District Office, Edmonton*)

There were 74 mines in operation in my district as at December 31st, 1946, as follows: Ardley Area 10, Camrose Area 6, Castor Area 29, Edmonton Area 19, Pembina Area 1, Rochester Area 2, Tofield Area 5, Westlock Area 1, Wetaskiwin Area 1.

Of this number, 31 are strip pits located as follows: 5 in Ardley Area, 5 in Camrose Area, 8 in Castor Area, 6 in Edmonton Area, 1 in Pembina Area, 3 in Tofield Area, 2 in Rochester Area, and 1 in Westlock Area.

Eight mines were transferred from my Inspectorate to Mr. J. A. Dutton, Assistant Chief Inspector of Mines, in the Edmonton Area, in the month of March.

During the year, 153 inspections were made, and in addition all serious accidents and complaints were investigated.

Miners' examinations were held at Edmonton, Camrose and Delburne during the year, and 140 candidates passed the examination and were granted miners' certificates.

There were 71 miners' permits and 38 provisional miners' certificates granted through this office.

There were 14 samples of coal taken and sent to the Research Council of Alberta for analyses.

Nine trade names were issued under The Coal Sales Act.

There were two prosecutions under The Coal Mines Regulation Act, one for firing shots without the proper authority and the other for firing with a device not approved by the Chief Inspector.

The following mines changed from underground methods of mining to strip mining: No. 447, C. Johnson; No. 953, Wiltze & Krammer; No. 1523, Picardville Coal Co.; No. 1417, James Easton; No. 1541, H. C. Muncy; and No. 1046, J. F. Cordel.

During the year there were six new mines opened: No. 1641, A. Horkulak; No. 1642, Bradley & O'Brien; No. 1643, Cherrile Bros.; No. 1644, Strawberry Creek Coal Co.; No. 1646, J. G. Mucha; and No. 1650, Wm. Jones.

Six mines were abandoned during the year as follows: No. 948, C. H. Hanson; No. 1233, M. Sinoski; No. 1594, J. Mucha; No. 1297, Ellerslie Collieries; No. 1352, Twin City Mine; and No. 1643, Cherrile Bros.

There were no mine fires or ignitions of gas during the year.

The following mines changed ownership: No. 289, from Bailey & Skauge to Bailey & Strader Bros; No. 447, from M. LeGear to Charles Johnston; No. 1232, from Davis & Gormley to John Ainsworth; No. 1237, from Strader Bros. to Davis & Gormley; No. 615, from John Sank to Komperdo Bros.; No. 1019, from Alex Johnson to Arne Anderson; No. 1572, from Frank Wilkinson to Alvin Anonson & Partners.

There were three domestic permits issued during the year.

Duckbill operations were commenced at the Starky Mine in the month of March. A small tippie, compressor and radial coal-cutters were installed at mine No. 1644. A small tippie and screening plant were erected at mine No. 1642. Mine No. 1107, Black Nugget Mine, installed an electrically operated shovel, 440 volts, and added tippie machinery for cleaning, screening and loading purposes.

Siskol electric coal-cutters were installed at mines No. 1535, McLean Coals; No. 1624, C. Binder. Mine No. 1420, Red Flame Coal Co. Ltd., installed another Baby Sullivan coal-cutter.

There were 17 accidents reported to this office during the year; of these, 4 were due to falls of roof, 2 to falls of coal, 7 to haulage, and 4 to miscellaneous causes.

I am pleased to report there were no fatal accidents during the year.

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### CALGARY INSPECTION DISTRICT

(W. E. G HALL, *District Office, Calgary*)

During the year there were 23 mines operating in my district, one of which is now abandoned. There were no new mines opened during the year.

There were 67 inspections made during the year, in addition to investigations of serious accidents and other complaints.

Examinations for miners' certificates were held at seven centres, and 112 certificates issued to successful candidates. In addition to the examinations, 64 permits and 17 provisional certificates as coal miners were issued from this office.

One trade name was registered during the year for Kneehill Valley Coal Co., Carbon.

There were no prosecutions instituted for contraventions of The Coal Mines Regulation Act during the year.

No domestic coal permits were issued for the Calgary district during 1946.

During the year there were 17 accidents reported to this office, this being three less than for 1945. I regret to report there was one fatal accident during the year, which compares favourably with 1945, when three were reported.

Nineteen coal samples and one dust sample were collected and sent to the Research Council of Alberta for analysis.

No mine air samples were collected during the year.

An ignition of gas occurred in No. 4 pitch, 51 crosscut No. 4 Mine of The Canmore Mines Ltd., about 6 o'clock p.m. on Wednesday, June 19th, but as the gas and air mixture had not reached an explosive state, the flame was readily and immediately extinguished. Presumably, the cause of the ignition was due to the picks of the cutter chain encountering some rock in the seam or contacting the floor of the seam. To prevent a recurrence of this hazard, the company is equipping their coal-cutting machines with water sprays impinging on the cutter bar.

There were no mine fires reported during the year.

There were 20 explosive purchase permits issued from this office during the year.

There are now four strip pits in the Calgary District, this being one more than in 1945. The additional pit is operated by the Brazeau Coll. Ltd., in conjunction with their underground mines.

Labour trouble in this district during 1946 was more serious than in 1945, as all the big producers in the field lost considerable time on account of local strikes.

Absenteeism at some of the mines, which in some cases ran to 25%, is now diminishing.

Taking everything into consideration, the mines in the Calgary District have had a good year, and the demand for coal was always ahead of the production. I have no doubt the tonnage produced was in excess of 1945.

The following is a list of the changes and improvements which have taken place at the various mines in this district during the year.

At mine No. 2, The Canmore Mines Ltd., a new briquetting plant with a capacity of 20 tons per hour is now in operation. A new Aerodyne fan is producing ventilation for the lower workings in No. 4 seam. The No. 4 Sirroco fan has been moved to the No. 5 mine Stewart seam, and a new tippie and storage chute has been built at No. 5 Mine, together with new bin and conveyor belt at the tippie.

Mine No. 53, operated by the Kneehill Coal Co., Carbon, has purchased and put in operation, 18 second-hand mine cars. A new tippie equipped with screen has been built. A new power line has been taken to the mine, and two 15 K.V.A. transformers have been installed. A new centrifugal pump with 2 H.P. motor has been put in the mine, together with 1,000 ft. 1½-inch discharge line, and one second-hand C. E. Sullivan No. 7 coal-cutter has been introduced into the mine, with necessary transmission line for operation of same.

At mines Nos. 256 and 1585 of Brazeau Collieries, Ltd., one 400 H.P. Vickers Keeler water tube boiler is now nearly ready for use. A new frame construction boiler house, 63 ft. by 30 ft., has been built. A new 20,000 gallon asphalt storage tank with necessary pumping system from C.N. tracks has been built at tippie. Two new storage bins, wood construction, for rock handling with total capacity of 100 tons, is completed. One new bin for storage of strip mined coal with capacity of 30 tons has also been built.

At mine No. 384 of Inland Coal Co., a 6-inch borehole has been drilled for conduction of power cables into the mine.

Bighorn & Saunders Creek Coll. Ltd., mine No. 388, has installed one 10 H.P. electric hoist for rock handling plant, a new power line and transformers for townsite use, a new panel on switchboard to control townsite power.

East Trochu Coal Co., mine No. 710, has installed a new 20-ton scale on concrete foundations.

At mine No. 852 of Alexo Coal Co. Ltd., a new washhouse has been built, this being a duplicate of the one which was burned, and the 20 H.P. motor on the pump has been replaced by a 40 H.P. motor.

Robert Campkin & Sons, mine No. 1254, have installed a new fan.

G. C. Davies, mine No. 1516, has purchased a new 4 ft. disc fan, and same is ready for installation.

At mine No. 1600, Peerless Coal Co., Carbon, an 18-inch belt conveyor to carry small coal from tippie to re-screening plant and bins, has been built.

Mine No. 1189, operated by James McKinlay & Sons, Huxley, was closed during the year.

At the Brazeau Collieries Ltd., Nordegg, the mines were closed down for 5½ days due to shortage of cars. The man-power situation is satisfactory.

At the Bighorn & Saunders Creek Coll. Ltd., Saunders, there is still a shortage of man-power, and absenteeism was general until the 40-hour week was instituted.

At the Alexo Mine the man-power shortage is acute, as they are 50% short of requirements.

At Canmore the man-power situation was not very satisfactory. A fair supply of common labour were looking for work, but in most instances they were drifters and did not stay long enough to become useful.

The No. 4 seam mine of the Canmore Mines Ltd. is the only mine in this district which is mechanized to any degree, such mechanization consisting of air-driven under-cutting machines, duckbill loaders, and shaker conveyors. I would say that by this method of mining a greater tonnage of coal is produced per man day than by the use of air picks. The blasting of coal is done with permitted explosives in both cases.

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### LETHBRIDGE INSPECTION DISTRICT

(E. H. MORGAN, *District Office, Lethbridge*)

During the year there were 24 mines operating in this district, and also four shale pits. Two mines were re-opened, one closed and one abandoned, leaving 24 in operation at December 31st.

There were 63 inspections made and reported on and serious accidents were all investigated. The scenes of accidents were visited in five cases, and 48 investigations were made for The Workmen's Compensation Board.

There were no ignitions of gas or mine fires reported during the year.

There were no changes of operators reported to this office, and there were no prosecutions instituted for contraventions of The Coal Mines Regulation Act.

I am pleased to report there were no fatal accidents in this district, and the number of accidents reported were less than in former years.

There was one trade name issued for mine No. 1380, Lucky Strike Mine, and one for mine No. 1602, McArthur & Allen Construction Co.

During the year there were no coal samples collected, but the M.S.A. Methane Detector was liberally used, particularly in the smaller mines.

The year 1946 in this district may be described as one with no labour trouble, and I think it has been a record year, for there was only one day stoppage of work on June 26th.

Sixteen explosive purchase permits were issued from this office during the year.

The following certificates were issued for this district during the year: Permits as coal miners, 63; Provisionals as miners, 29; Miners certificates by examination, 77.

There were six strip coal mines operating in 1946, this being the same as in 1945, but all are now operated by private companies, and are no longer under Government control.

Notwithstanding the comparatively large number of certificates issued during the year, there is still a man-power shortage here. A number of these men left after working a few weeks, and in some cases only worked a few days.

Pick mining is a thing of the past in this district except in the very small mines in which the daily output is so small that the cost of a cutting machine is prohibitive.

Mechanical loading has been substantially increased at the Shaughnessy mine, by installing a 2000 ft. by 3 ft. 6 in. conveyor belt and two more duckbills, but at the Galt mine it has been reduced until it no longer exists. The different policies are due to the different natural conditions of the mines. Mechanization should be the aim at all mines in the Province, but its introduction should accomplish two things—safer and more profitable operations.

The following are the new installations at the underground mines:

*Standard Mine No. 1263*, at Shaughnessy, operated by Lethbridge Coll. Ltd.:

One Goodman shortwall coal-cutter, type 512 CL3 Permissible, 220 volts, No. 7691, U.S. Bureau of Mines Cert. No. 312, with Goodman Type KA cable reel truck.

One Richard Sutcliffe Ltd. belt conveyor, gate type, width 36 inches, length 2,000 feet, driving head type—Goliath Mark 6, 42-inch size.

Prime mover, 35 H.P. Trislot supertorque type, Buxton certificate FLP motor, 1200 R.P.M., 220 volts, 60 cycles, 3 phase. *Note:* The first of its kind in the Province, a rather costly installation, but without doubt it will afford a safer, more efficient and a more economical system of face haulage at this mine.

One Anderson Boyes & Co. Ltd., type AB Universal coal-cutter, Buxton certificate FLP and accessories.

Two McDougal gathering pumps, powered by Lancashire Crypto motors, Buxton FLP certificates, No. 354.

*Galt Mine No. 1464*, Lethbridge, operated by Lethbridge Collieries Ltd.:

One new 75 H.P. motor on the east side main haulage to replace a 50 H.P. motor.

One new pump installed at bottom of main shaft, operated by 40 H.P. motor.

A car retarder to control the loads at the shaft bottom. This is a squeezer and is operated by compressed air.

Fluorescent lighting in hoist room.

The No. 5 borehole was put down to continue the practice of shortening power lines below ground, both as a safety measure and to reduce losses by falling voltage.

*Chester Mine No. 1095, Lethbridge:*

A Class 1 group D 15 H.P. motor and switch on haulage hoist near bottom of haulage slope.

An overload oil breaker at bottom of cable borehole.

A 5-inch borehole was put down for pumping mine water.

*Federal Mine No. 1581, Lethbridge, operated by J. J. Hamilton Coal Co.:*

A rope haulage system operated by a 10 H.P. motor.

A Chicago pneumatic electrically operated coal drill.

A Siskol coal shearing machine, operated electrically.

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### COALSPUR-MOUNTAIN PARK INSPECTION DISTRICT

(A. MUIR, *District Office, Edson*)

There were 10 underground mines operating in this district during the year and, in addition, six strip mining operations.

During the year, 74 complete inspections were made, in addition to visits made to several mines for other official purposes.

I am pleased to report no ignitions of gas or mine fires have occurred in this district.

There were 32 accidents reported to this office during the year, three of which were fatal. All fatal and serious accidents were investigated.

One trade name was registered for the Woodley Mine at Hinton.

Twelve prosecutions were instituted for contravention of The Coal Mines Regulation Act, convictions being obtained in each case.

Seven explosive purchase permits were issued from this office.

Mine air samples were taken from Luscar No. 3 Mine and forwarded to the Chemistry Branch of the Department of Mines and Resources, Ottawa, for analysis.

During the year, 50 provisional miners' certificates were issued, 44 permits as miners, and 115 certificates were issued by examination.

The following is a list of the improvements and new installations at the various mines in this district:

Mountain Park Coals Ltd., mine No. 282, erected a new strip coal bin.

The shaft mine of Cadomin Coal Co. Ltd., mine No. 693, has installed two utility hoists, a S.P. 300 fan, 48-inch coal crusher, conveyors, jigs, elevators and some installations on wet washery and buildings. A new eight-bed hospital has been completed and is in operation. Four stokers have been installed in townsite buildings for heating purposes.

The Upper West Mine of this company has installed a Holman compressor, 500 c.f.m., with Diesel drive, direct drive, receivers, etc., also a low pressure locomotive type heating boiler.

The Upper East Mine has installed a small ventilating fan.

Luscar Coals Ltd., mine No. 905 and No. 1617, has installed the following:

*No. 3 Mine*—A 150 H.P. double drum hoist and hoist house erected. A portable diesel driven compressor of 600 cubic feet per minute capacity has been delivered to the mine and will be installed to provide compressed air for operation of conveyors.

*No. 2 Mine*—A  $\frac{3}{4}$ -yard power shovel was delivered for stripping work at this mine.

*Gregg Mine*—This is a new mine and all necessary buildings and tipples were completed and a small fan installed, also a portable compressor, gasoline driven, was installed to permit the operation of two new air picks and a jack-hammer.

*No. 1 Mine*—Mining is being done with two new Ingersoll Rand air picks.

*New Strip Mine*—Two new Cletrac bull-dozers and a LaPlante-Choate scraper and other equipment has been delivered for work at the open pit, including a Sullivan portable compressor and a TD-18 International tractor equipped with an overhead loader and a 13-ton ripper.

At the strip pit being operated for this Company by Fred Mannix Co., they are using 1 Allis Chalmers H.D. 14 tractor, 4 LeTeourneau scrappers, 1 Northwest shovel, 1 Ingersoll Rand air compressor and 1 Hobart welder.

The Foothills Collieries Ltd., mine No. 771, has installed a 245 H.P. return tubular boiler with water cooled side walls and fired by a type E combustion engineering stoker.

McLeod River Hard Coal Co. (1941) Ltd., mine No. 846, installed underground an automatic battery charger for locomotive batteries, a Mecor shaking conveyor and installed a hoist for slope sinking. On the surface, three 80-ton bunkers were erected for coal handling plant, a Trommel screen replaced by a larger unit, picking belt and housing installed for handling nut coal. An addition was made to the tool shop and construction started on a steel frame boiler house and two 500 H.P. water-tube boilers.

The only new installation at Lakeside Coals Ltd., mine No. 775, was a small electrically driven fan for the small seam.

The Coal Valley Mining Co. Ltd., mine No. 1002, has installed: One 100B Bucyrus-Erie electric dragline on coal extraction with 110-foot boom and four cubic yard bucket; a 250 KVA 2300 volt, 3 phase, 60 cycle generator driven by tex rope belts from a two-cylinder steam engine, complete with switch panel; a new warehouse building, 72 ft. by 28 ft., with reinforced concrete foundations and floor—the building is of wood and corrugated sheet iron, but not completed due to lack of material; a 12,500 Imperial gallon capacity cylindrical steel storage tank for diesel fuel, supported on reinforced concrete foundation.

The Sterling Collieries Co. Ltd., mine No. 769, has erected an addition to their store-house.

We now have six strip pits in operation on the Coal Branch, namely Mountain Park, Cadomin, Luscar two, Sterco and Coal Valley. The two latter pits are producing their whole output from their pits.

We are likely to have quite a few more pits in operation soon, as this type of mining has had quite an effect on the increased output from the Coal Branch.

Two strikes were the only labour troubles on the Branch during the year. It has been a very successful year in production, but same could have been enlarged had it not been for approximately 48 days lost due to various causes.

Pitching seams and conditions on the Coal Branch do not lend themselves to mechanization, although some improvements have been made. Air powered drills are being used to replace hand augers; air hoists are being used in one or two cases to replace horses.

At Cadomin a trial was made to use an Eimco loader, but apparently same did not fit their conditions. On mucking rock the loader is proving very satisfactory. Mechanization in connection with strip mining is proving very effective and is recognized by all.

The man-power question appears to have improved in the past few months. Since the five-day week began, absenteeism has been eliminated to a great extent.

A great deal of time was taken up at the Luscar Coals Ltd. in recovery work and investigations into the cause of the explosion which occurred on May 12th, 1945, the last body being recovered on May 6, 1946.

The mine has now been completely cleaned up, and the work of driving two airways to the surface from inside No. 3 panel is progressing satisfactorily.

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#### CROWSNEST INSPECTION DISTRICT

(J. D. B. BROWN, *District Office, Blairmore*)

There were no ignitions of gas and no fires underground during the year.

On the surface, there was an outbreak of fire at the south end of the Bellevue Mine tippie the latter part of January, which destroyed the rock bin and house-coal bin, together with conveyor belts and chutes contained therein. The loss would have been considerably heavier had it not been for the prompt and effective work of the local fire brigades, and the efforts of the men and officials of the mines nearby. The fire was caused by a conveyor belt sticking, due to the belt end being plugged with fines, and the resulting friction between the moving drive pulley and the stationary belt ignited the fines, which were soon fanned into flame by the high wind that was blowing at the time. The damaged tippie has been rebuilt, and a more fire resistant structure has been created.

No mines were closed or abandoned during the year. Two mines, No. 59, Keith Mine, and No. 1440, the Rhodes Mine, were reopened after being temporarily closed.

Disciplinary action has been fairly effective throughout the year, and only two prosecutions have been instituted where this action was serious enough to warrant such steps being taken.

Four fatal accidents occurred during the year, three being due to haulage and transportation and the other to a fall of rock at the



coal face. In addition to the above, there were 51 accidents reported to this office, and of this number, 20 were serious.

Twelve samples of coal were collected and forwarded to the Research Council of Alberta for analysis and swelling index tests.

There were 45 mine dust samples collected during the year and forwarded to the Research Council of Alberta for analysis. These analyses have been very helpful to this office, as they provide the means of making a check on the accuracy of the samples taken at the mines each month.

Eight samples of mine air were collected and forwarded to Ottawa for analysis.

Eight explosive purchase permits were issued from this office.

Inspection of the various mines in this district occupied 100 days. Eight days were spent taking dust samples, and over a week was spent at the mines in the west of the district, accompanying Mr. Windish and Mr. Owens of the Workmen's Compensation Board, in a survey of the mines as to industrial health conditions. Mr. Windish is an industrial hygiene investigator temporarily attached to the Board for this purpose.

In addition, 17 days were spent holding examinations for miners' certificates and first, second and third class certificates.

All inquests were attended, and all serious accidents investigated and reported on.

During the year there were 198 miners' certificates, 149 miners' permits and 42 provisional miners' certificates issued from this office.

The demand for coal from this district continues unabated, and the mines worked to their full capacity during the year, with few exceptions. On the whole, the district has been fairly free from labour troubles.

Since the establishment of the new agreement recently, it is generally conceded that absenteeism has decreased slightly, but positive results cannot be ascertained due to the short time which has elapsed since its inception, and the holiday season has tended to obscure the trend.

With regard to the man-power situation, conditions have improved somewhat, but with few miners looking for work the operators are resigned to the fact that they must train new miners, which will take time. The fact remains, however, that there is still a dearth of experienced help.

There has been no increase in the mechanization of the mines here. The majority of the working faces are so situated that the coal mined at the face travels to the gangways by gravity and, generally speaking, all coal is loosened from the solid faces by means of air picks. The above conditions will make any scheme of mechanization difficult to consummate.

There are some districts in the various mines where these conditions do not exist, that is, where the inclination of the seam precludes gravity loading, and in these sections conveyor belts and shaker conveyors are in use where mechanization in its present stage of development could be attempted.

Several installations are contemplated, and in some cases orders have been placed for the necessary machinery, delivery of which has been held up owing to delay in shipment by the manufacturers.

In driving entries, mechanical loading is the rule with one or two exceptions, and duckbill and shovel type loaders are generally used. In some sections scraper hoists are used to bring the coal from the face to the loading points on the entries. The quantity of coal cut by machinery other than air picks is so small as to be negligible, and as any increase in mechanization will have to go hand in hand with an increase in mechanically cut coal, therefore some experimentation in this direction is indicated.

The following are the improvements and new installations made at various mines in this district:

The International Coal & Coke Co. Ltd., mine No. 88, has completed the sinking of hoisting slope from "D" level to "E" level. This slope is driven in rock throughout. They are remodelling their tipple, but work is not yet completed. The box-car weigh scale house has been moved from the east side to the west side of box-car loader.

West Canadian Collieries Ltd., Bellevue, mine No. 87, has installed 3,500 feet of low pressure line, 10-inch diameter, which replaces an equal length of 6-inch pipe line. The boiler house has been rebuilt and modernized. A concrete breeze type tile brick was used in this building, which makes a very satisfactory job. The part of the tipple destroyed by fire early in the year has been rebuilt and steel bins have replaced those destroyed; also some remodelling has been done on the tipple.

McGillivray Creek Coal & Coke Co. Ltd., mine No. 204, has installed classifiers and Baum jigs in place of air tables, which were found unsatisfactory for the purposes. They have installed a 1,200 cu. ft. air compressor, 250 H.P., which replaces a 900 cu. ft. unit.

At Hillcrest Mohawk Collieries Ltd., mine No. 133, a Ty-Rock 5x12 ft. 600 screen has been installed on the tipple, and underground they have installed a Mecco air drive shaker conveyor as a main conveyor. At the No. 5 Mine they have constructed  $3\frac{1}{2}$  miles of high tension power lines, 66,000 volts, and built a sub-station housing a 750 KW 3 phase transformer, where the power is reduced to 2,300 volts. They have installed a 100 H.P. motor on the Aero-vane Sheldon fan, and also a motor on the 300 cu. ft. air compressor, 20 H.P. These last two machines were previously diesel operated. They have almost completed the building which will house the wash-house, accommodating 120 men, boiler room, compressor room and mine office.

A concrete dam has been constructed to hold 200,000 gallons, and fire pumps are being installed. A powder house of brick construction has been built and the tracks at the mine entrance have been remodelled.

Two KR 11 and one K6F trucks have been delivered to haul coal from the No. 5 Mine to the tipple. The foundations have been laid for a 1,700 cu. ft. air compressor driven by a 300 H.P. 2,300 volt synchronous motor, which is on hand.

West Canadian Collieries Ltd., mine No. 396 (Greenhill), has laid 4,000 feet of 10-inch compressed air line and installed an 1,800 cu. ft. air compressor. A new fan installation has been completed at Cougar North. The fan is driven by a 50 H.P. motor, and is expected to give 100,000 cu. ft. per minute at a 2-inch water gauge. They have extended the endless rope haulage on 5 level and re-located the engine driving this rope at Cougar South on the surface. On the

tipple they have installed two Allis Chalmers low head de-watering screens, 6x10 feet, and installed a Brusset McNally air jig. The foundation for the briquette plant has been laid, and this building should be completed next year. A new locomotive shed has been built, using concrete breeze tile brick.

Thirty houses have been built by the Hillcrest Mohawk Collieries Ltd., and 22 more are under construction. They are four-room houses.

The Neumann Mine, No. 1623, at Pincher Creek, has completed the rock tunnel, 190 feet in length, and also the second outlet, and has built a coal bin to hold 100 tons.

The Keith Mine, No. 59, has finished draining water from old workings, and preparations are being made to sink again to form a new entry.

At the Rhodes Mine, No. 1440, the old slope and entry have been cleaned out, and extraction of coal will begin the first of next year.

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### DRUMHELLER INSPECTION DISTRICT

(JAMES HORNE, *District Office, Drumheller*)

During the year, 39 mines operated in this district. One mine, No. 1473, of Monarch Coal Mining Co. Ltd., was abandoned; three mines, Nos. 1515 Foye Mine, 486 Litke Bros., and 1544 Castle Coal Co. Ltd., were temporarily closed; and two mines, Nos. 1583 Reliance Mine, and 1314 Gowan Coulee Mine, were re-opened.

There were no ignitions of gas or coal dust reported during the year.

The mine fire which occurred at Newcastle Collieries Ltd. on December 17th, 1944, was found to be extinguished when the seals were removed in March, 1946.

Nine mine air samples were collected and forwarded to the Department of Mines and Resources, Ottawa, for analysis.

Two coal samples were collected and forwarded to the Research Council of Alberta for analysis.

There were 30 explosive purchase permits issued from this office during the year.

Two trade names were registered, Western Monarch Coal Mining Co. Ltd. and Gowan Coulee Coals.

Seven road allowances leases were granted to mines in this district—three to Newcastle Collieries Ltd. and four to Rosedale Collieries, Ltd.

Six prosecutions were instituted during the year for contraventions of The Coal Mines Regulation Act, convictions being obtained in five cases.

During the year, 234 miners' certificates were granted by examination; 32 miners' provisional certificates and 176 miners' permits were issued from this office.

There were 114 inspections made during the year, and in addition all fatal and serious accidents were investigated and inquests attended.

There were 65 accidents reported to this office, of which four, I regret to report, were fatal.

The following is a list of new installations at the various mines:

Red Deer Valley Coal Co. Ltd., mine No. 402—One Flood City 15 H.P. car spotting hoist, one 15 H.P. centrifugal pump and one 7½ H.P. collecting pump, one 60 H.P. slope hoist at No. 2 Mine, one chain gathering conveyor driven by 15 H.P. motor, one elevating conveyor driven by 5 H.P. motor.

Rosedale Collieries Ltd., mine No. 346—One G.E. 50 H.P. motor for M. & T. drive, one Goodman slabbing machine, one G.E. 100 K.W. motor generator set, and a 50-ton addition to the slack bins.

Rosedale Collieries Ltd., mine No. 436 (Star Mine)—One 6-ton Morgan Gardner trolley locomotive, one 5-ton Goodman trolley locomotive, 8,000 feet of trolley wire, one 60 K.W. motor generator set, one 100 H.P. G.E. motor for M. & T. drive.

Saskatchewan Federated Co-operatives Ltd., mine No. 1299—One 5-ton Mancha storage battery locomotive, two sets of Exide batteries and one battery charging M.G. set, one 20 ft. by 23 ft. addition to the washhouse.

Hy-Grade Coal Mining Co. Ltd., mine No. 1421, installed one Sheldon 2-stage 66-inch axial flow fan, complete with 50 H.P. variable speed motor and concrete fan housing; one permissible Little Giant coal drill.

At the Regal Coal Co. Ltd. Atlas Mine, No. 1484—One 8-ton Goodman battery locomotive and one Hertnor electric M.G. set for battery charging was installed.

Murray Collieries Ltd., mine No. 1491, installed one aerial Rock conveyor complete with 30 H.P. Crocker Wheeler motor, 1,400 feet concentric strand 1½-inch rope; 400 ft. 6x19 1½-inch rope; drag line 6x19, ⅝-inch rope, 2,800 feet; one 10 H.P. G.E. motor, feeder and rock dump drive; one Link belt rotary dump, 8 feet in diameter.

Mine No. 1493, Western Gem & Jewel Collieries Ltd., installed 125 P3 electric cap lamps.

Sovereign Coal Mining Co., mine No. 1570, installed one 1-man permissible coal drill.

Western Monarch, mine No. 1573, of Monarch Coal Mining Co. Ltd., has erected the tippie from the Monarch mine No. 1473, now abandoned, at the new site near East Coulee, also 25 dwelling houses for workmen on the townsite and two houses on the mine site. Workmen are a mile from the mine, and are conveyed to work by a company bus.

On the townsite, a concrete lined well, 10 ft. by 30 ft., with pump having a capacity of 10,000 gallons, has been installed for townsite supply; 5,800 feet of water line has been laid, each lot being supplied with a tap; one boiler room, 24x24 ft., with boiler installation. This unit is to heat wash-house, offices and other buildings at the mine.

One 75 H.P. motor generator set housed on the surface; one 5-ton Jeffrey trolley locomotive and 4,000 feet of trolley wire; one G20-B77 Goodman shaker conveyor, pan line and duckbill complete; two 5 H.P. Brown Fayro car spotter hoists, have also been completely installed.

Midland Coal Mining Co. Ltd., mine No. 367, now operates a mantrip.

At mine No. 346 of Rosedale Collieries Ltd. a strip pit has been opened, from which 60,000 tons of coal have been won. This has

augmented considerably the production of the underground workings.

Eight additional strip pits in this district have had a busy year, having worked continuously except for times when truck haulage was impossible owing to poor road conditions.

All underground operations have experienced difficulty in securing suitable mine timber. A shortage of experienced miners continues, this being most evident in the East Coulee section, and at the smaller mines lying outside the Valley absenteeism has been a general complaint.

Three mines in the district are totally mechanized—Monarch Coal Mining Co. Ltd., Red Deer Valley Coal Co. Ltd., and Rosedale Collieries Ltd.—and they have the appearance of successful operation. Although full particulars are not available, the tonnage per man-shift worked exceeds that of hand loading.

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### ELECTRICAL INSPECTION OF MINES

(BURTON TAIT, *Electrical Inspector of Mines*)

During the year there were 75 mines in the Province using electrical equipment above and below ground. In addition to these, eight small mines used electric cap lamps, battery charging apparatus and electric signals. All mines in the Province where explosives are used now use electric shot-firing apparatus, and a great many use electric gas detecting devices.

Examinations for Mine Electricians' Certificates have this year been divided into two classes, and are now written examinations instead of oral.

Five candidates presented themselves for the first class examination of whom two were successful, and nine presented themselves for the second class examination, of whom four were successful.

All mines using electricity have been inspected during the year, in some cases two inspections were made. There were 116 complete and 15 partial inspections made. This is in addition to travelling and attending to all correspondence dealing with electrical matters in connection with mines.

No lost-time accidents, caused by the use of electricity, or mine fires were reported to this office during 1946.

Lakeside Coals Ltd. at Robb and the Castle Coal Co. mine at Wayne were closed, but not abandoned.

The following mines started using electrical equipment during the year:

*Bryan Hard Coal Co. Ltd.*, Mile 32 Robb, mine No. 1157, installed a 35 KVA 2300 volt, 3 phase generator to supply electrically driven pumps in the mine.

*Dickinson & Knight*, Carbondale, mine No. 1627, installed a 25 KVA, 220 volt, 3 phase generator to supply a fan and a Siskol coal-cutter.

*Morinville Coals Ltd.*, Morinville, mine No. 1635, installed a 7.5 Kw, 250 volt D.C. generator and a Siskol coal-cutter.

*C. Binder*, Ryley, mine No. 1624, installed a 15 Kw, 250 volt D.C. generator and a Siskol coal-cutter.

*Strickland & Partners*, Heisler, mine No. 911, installed a 12.5 KVA, 220 volt, 3 phase generator and a Siskol coal-cutter.

The generators at the above mines are driven by diesel or gas engines.

*Kneehill Valley Coal Mine, Carbon*, mine No. 194, installed a 30 H.P. Sullivan coal-cutter underground and a 5 H.P. fan on the surface. This mine is supplied with power by the Canadian Utilities Ltd.

Major electrical installations in and about mines during the year are as follows:

*Coal Valley Mining Co. Ltd.*, mine No. 1002, installed a Bucyrus-Erie electric drag line of 4 cubic yards capacity in their No. 4 pit; motor generator sets with 175 H.P. 2300 volt motor and a 15 H.P. 440 volt motor and 3 D.C. generators supply direct current for the several motors with Ward-Leonard controls.

*Southern Alberta Coal Co.*, mine No. 1604, installed a diesel-electric drag line in their strip pit.

*Lethbridge Collieries Ltd.*, mine No. 1263, Shaughnessy, installed a 36-inch wide belt conveyor, 2,000 feet long (4,020 feet of belt) in their Standard Mine; four duckbill loaders are now discharging coal onto this belt, and they expect to soon have eight duckbills loading onto the belt. The conveyor is powered by a 35 H.P. 220 volt motor with armored cable wiring and flame-proof control gear.

*The Star Mine of Rosedale Collieries Ltd., Aerial*, mine No. 436, installed a trolley locomotive haulage on the main haul to the pit bottom, replacing the main and tail haulage formerly used.

*McGillivray Creek Coal & Coke Co. Ltd.*, mine No. 204, installed a compressor with a 250 H.P. 2300 volt synchronous motor.

*West Canadian Collieries Ltd.* installed the following—Bellevue, mine No. 87, a compressor with a 300 H.P. 2300 volt synchronous motor and automatic controls; Greenhill, mine No. 396, a compressor with a 250 H.P. 2300 volt synchronous motor and automatic controls, also a 300 H.P. 2300 volt slip ring hoist motor.

*The Canmore Mines Ltd.*, mine No. 2, installed another briquette plant with motors totalling 290 H.P. at 440 volts, and switch gear and starters installed in a switch room.

*Cadomin Coal Co. Ltd.*, mine No. 693, installed a slope hoist with a 100 H.P. 440 volt motor at their west mine.

*Luscar Coals Ltd.*, mine No. 905, installed a hoist with a 150 H.P. 550 volt slip ring motor.

There have been numerous smaller installations of electrical equipment during the year. Apart from lighting and heating, the horse power of motors installed during the year totals 4,507.

At December 31st, 1946, the total H.P. of motors in use (connected load) was: Above ground, 38,440; underground, 14,349; total, 52,789.

Number of electric coal-cutting machines . . . . .	155
Number of trolley locomotives . . . . .	16
Number of battery locomotives . . . . .	37
Number of electrically operated conveyors . . . . .	27
Number of electric coal drills . . . . .	40
Number of electric safety lamps . . . . .	5,933
Number of telephones underground . . . . .	175

The majority of electrified mines are supplied with power from Central Stations. We have, in addition, local steam plants with a capacity of 9,030 KVA and diesel and gas engine plants with a capacity of about 525 KVA.

The trend in coal production is towards mechanization and the greater use of electrical equipment.

In the Monarch Coal Mining Co. Ltd. mine at East Coulee, all coal is mined, drilled, shot, loaded, conveyed and hauled to the surface using electro-mechanical equipment throughout. This equipment consists of electric coal-cutters, drills, duckbill loaders, conveyors, hoists, battery and trolley locomotives, and no hand loading is carried on and no horses are used.

The Adanac mine of the West Canadian Collieries will soon introduce electric coal-cutters, duckbill loaders, scraper conveyors, hoists, etc., into the mine. This will be the first bituminous mine in the Province to use electrical apparatus at the coal face. All apparatus will be of the approved flame-proof type. Screened trailing cables will be used and earth leakage protection incorporated in switch gear.

The Provincial Institute of Technology and Art, Calgary, proposes in the near future to make available a correspondence course for mine electricians. This should be of great value, as with increased mechanization there is, and no doubt will continue to be, a definite need for trained electricians.

Satisfactory progress is being made in raising the standard of mine electrical installations. Obsolete electrical apparatus is gradually being replaced with new and better apparatus, and in some cases automatic controls replacing manual controls. Protection of equipment and circuits is receiving more attention than used to be the case, and testing of equipment and cables to avoid breakdowns is making itself felt.

Dustproof apparatus is replacing general purpose apparatus in dusty locations in tipples and cleaning plants, or the general purpose apparatus is being segregated in dustproof rooms.





## ANNUAL PRODUCTION OF COAL FROM MINES IN THE PROVINCE OF ALBERTA

The following table is taken from a report prepared by the Dominion Bureau of Statistics and published in "Coal Statistics for Canada" for the year 1945:

Calendar Year	Short Tons	Value
1886	43,220	\$ 81,112
1887	74,152	157,577
1888	115,124	183,554
1889	97,364	179,640
1890	128,783	198,298
1891	174,131	437,243
1892	178,970	460,605
1893	230,070	586,260
1894	184,940	473,827
1895	169,885	382,526
1896	209,162	581,832
1897	242,163	630,408
1898	315,088	787,720
1899	309,600	774,000
1900	311,450	778,625
1901	340,275	850,687
1902	402,819	960,601
1903	495,893	1,117,541
1904	661,732	1,404,524
1905	931,917	1,993,915
1906	1,246,360	2,614,762
1907	1,591,679	3,836,286
1908	1,685,661	4,127,311
1909	1,994,741	4,838,109
1910	2,894,469	7,065,736
1911	1,511,036	3,979,264
1912	3,240,577	8,113,525
1913	4,014,755	10,418,941
1914	3,683,015	9,350,392
1915	3,360,818	8,283,079
1916	4,559,054	11,386,577
1917	4,736,368	14,153,685
1918	5,972,816	20,537,287
1919	4,933,660	18,205,205
1920	6,907,765	30,186,933
1921	5,909,217	27,246,514
1922	5,990,911	24,351,913
1923	6,864,397	28,018,303
1924	5,189,729	18,884,318
1925	5,869,031	20,021,484
1926	6,503,705	20,886,103
1927	6,934,162	21,982,058
1928	7,336,330	23,532,414
1929	7,150,693	22,928,182
1930	5,753,528	18,063,225
1931	4,564,015	13,342,675
1932	4,870,648	13,526,309
1933	4,718,788	12,307,258
1934	4,753,810	12,556,099
1935	5,462,894	14,094,795
1936	5,696,960	14,659,705
1937	5,562,839	14,563,911
1938	5,251,283	13,698,470
1939	5,519,208	14,415,281
1940	6,203,839	16,377,959
1941	6,969,962	19,382,471
1942	7,754,053	22,624,410
1943	7,676,726	24,030,686
1944	7,428,708	26,814,957
1945	7,800,151	27,751,377
Total	211,676,939	656,178,244 ...

NOTE: Production quantities and values prior to 1919 refer to sales and colliery consumption. From 1919 to 1945 the mine output figures are given.

ANNUAL CONSUMPTION OF COAL IN CANADA, 1902-1945

The following revised table is taken from the report issued by the Dominion Bureau of Statistics for the year 1945:

Year	Canadian*		Imported coal "Entered for consumption"				Total	Per Capita
			From U.S.A.		From Great Britain			
	Short tons	%	Short tons	%	Short tons	%	Short tons	
1902	5,376,413	53.1	4,656,286		101,726		10,110,972	1,840
1903	6,005,735	47.3	6,520,931		184,593		12,684,185	2,245
1904	6,697,183	47.9	7,238,869		85,687		13,994,665	2,402
1905	7,032,661	48.4	7,233,738		68,500		14,249,107	2,374
1906	7,927,560	50.5	7,787,338		67,014		15,685,885	2,573
1907	8,617,352	45.0	10,588,697		54,325		19,166,855	2,990
1908	8,156,478	47.3	10,203,355		97,514		19,351,902	2,921
1909	8,913,376	47.9	9,805,253		67,671		18,625,202	2,739
1910	10,532,103	50.2	10,545,451		51,541		20,970,226	3,001
1911	9,822,749	40.5	14,510,129		48,963		24,247,698	3,364
1912	12,385,696	46.0	14,557,124		38,668		26,934,800	3,645
1913	13,450,158	42.6	18,145,769		37,825		31,582,545	4,138
1914	12,214,403	45.5	14,687,853		33,101		26,852,323	3,408
1915	11,500,480	48.1	12,450,796		15,098		23,906,692	2,995
1916	12,348,036	41.3	17,576,202		4,401		29,865,856	3,733
1917	12,313,603	37.2	20,848,009		9,451		33,123,735	4,110
1918	13,160,731	37.8	21,674,826		3,761		34,771,832	4,268
1919	11,611,168	40.3	17,292,913		344		28,847,437	3,471
1920	14,025,566	42.9	18,752,981		1,591		32,694,307	3,821
1921	12,715,734	41.1	18,300,081		765,980		32,694,307	3,821
1922	13,044,352	50.2	12,255,555		572,570		26,006,541	2,916
1923	15,070,962	41.8	20,417,239		317,112		36,038,933	4,000
1924	12,529,358	42.8	16,405,344		604,117		29,243,501	3,198
1925	12,125,290	42.6	15,744,957		287,299		28,457,261	3,062
1926	15,086,296	47.7	16,204,405		907,220		31,651,851	3,349
1927	15,944,983	46.7	17,266,434		682,755		34,122,286	3,541
1928	16,487,807	50.0	15,830,688		843,502		33,003,389	3,556
1929	16,387,461	48.0	16,780,452		1,144,861		34,111,593	3,401
1930	14,052,671	43.3	16,971,933		1,144,861		32,464,710	3,180
1931	11,682,779	47.7	11,793,798		987,442		24,511,106	2,362
1932	11,212,701	49.0	9,889,866		1,727,716		22,867,193	2,177
1933	11,456,273	51.5	8,865,935		1,942,875		22,265,235	2,085
1934	13,296,406	51.1	10,580,710		1,981,116		25,887,574	2,292
1935	13,306,303	53.1	9,618,518		1,822,500		25,042,138	2,290
1936	14,508,642	53.3	10,801,643		1,498,656		27,228,167	2,469
1937	15,172,729	51.5	12,574,574		1,211,052		29,441,314	2,648



## THE MINES BRANCH

The following table shows the quantity of coke imported into Canada during the years 1944, 1945 and 1946, through ports in the Provinces, compiled from information from the Dominion Bureau of Statistics:

Ports in Province of	1944		1945		1946	
	Made from Petroleum	Made from Coal	Made from Petroleum	Made from Coal	Made from Petroleum	Made from Coal
Nova Scotia .....		148		195		135
Quebec .....	182,189	49,686	109,638	210,778	161,660	25,301
Ontario .....	39,888	739,445	82,691	1,008,738	60,295	863,467
Manitoba .....		21,833		27,941		17,823
Saskatchewan .....		32				
British Columbia .....	146	2,316	1	2,896	68	2,282
Alberta .....						32
<b>Total .....</b>	<b>222,223</b>	<b>813,460</b>	<b>192,330</b>	<b>1,250,548</b>	<b>222,023</b>	<b>909,111</b>

Imports of Coal for each year since 1919, through ports in the Provinces of Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Yukon.

## BITUMINOUS COAL.

Year	Central Ontario	Port Arthur	Fort Frances	Fort William	Total Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia & Yukon	Total Canada
1919	7,641,682	483,991	59,253	1,063,793	9,248,719	62,746	1,406	1,131	6,700	12,010,490
1920	10,261,237	571,879	111,957	1,391,709	12,336,903	43,547	535	607	13,128	15,902,632
1921	8,605,872	659,763	127,956	1,316,155	10,709,746	76,833	2,127	1,820	17,081	13,536,250
1922	7,424,171	445,019	68,082	1,517,250	9,454,522	74,848	1,484	1,147	13,966	11,563,467
1923	11,621,859	619,037	95,439	1,731,667	14,068,002	112,134	1,607	1,110	17,919	17,517,108
1924	8,763,676	403,388	70,259	1,500,525	10,737,848	143,607	2,422	1,209	25,049	12,619,082
1925	9,100,465	286,984	81,173	497,264	9,884,710	147,758	1,732	1,175	40,286	13,015,323
1926	10,531,095	199,908	83,182	965,105	11,696,109	149,374	1,887	1,515	32,992	13,802,242
1927	11,572,678	221,694	90,864	1,273,691	13,158,927	142,860	2,141	1,324	22,648	15,178,640
1928	10,539,408	194,718	103,594	1,481,228	12,318,948	97,002	2,536	1,360	18,682	13,966,183
1929	11,232,027	143,889	100,141	1,591,656	13,067,713	38,801	2,477	1,327	18,526	14,585,275
1930	10,421,748	165,499	70,403	1,297,959	11,955,589	24,898	1,816	1,351	8,886	13,345,308
1931	8,553,735	86,810	65,738	609,279	9,315,563	7,041	1,535	912	2,308	10,347,280
1932	6,867,307	62,019	48,195	691,831	7,670,072	12,298	1,459	830	3,582	8,532,318
1933	7,038,386	74,934	30,108	482,206	7,625,634	12,213	1,327	998	26,077	8,427,656
1934	8,472,143	126,671	37,085	602,510	9,238,409	12,103	1,235	1,302	2,301	10,268,945
1935	8,032,739	6,033	53,145	591,810	8,683,727	9,918	952	1,136	3,722(a)	9,549,457(b)
1936	8,448,795	156,229	67,784	688,950	9,361,758	14,101	847	1,205	3,524(d)	10,200,253(e)
1937	9,948,567	128,595	69,598	820,160	10,964,920	12,079	743	1,293	2,540(f)	12,241,270(h)
1938	7,981,712	113,746	56,806	698,371	8,850,635	9,061	783	1,116	2,701(g)	9,567,334(i)
1939	8,035,174	77,532	53,772	528,887	8,695,365	15,035	862	990	1,808(n)	9,903,613(o)
1940	13,312,806	28,363	26,133	503,792	11,875,089	7,065	692	795	2,591	13,578,705(x)
1941	13,910,140	25,608	36,823	765,376	14,711,647	10,021	671	1,062	1,646	17,867,068
1942	14,397,298	292,783	51,942	1,212,815	15,964,898	21,568	773	789	1,573	20,807,005
1943	15,324,762	152,955	262,893	2,425,130	18,365,760	90,293	732	1,002	1,611	24,393,798
1944	271,617	271,617	364,674	2,195,070	18,485,923	16,235	536	935	1,236	24,513,527
1945	14,236,472	262,266	290,856	1,320,728	16,110,323	20,397	642	1,221	1,682	21,176,811(xx)
1946	14,272,178	331,674	322,295	1,946,218	16,872,365	16,265	686	1,038	1,790	22,000,398xxx

xConsists of 13,382,389 tons from the United States and 196,316 tons from Great Britain.

xxConsists of 21,176,805 tons from the United States and 6 tons from Great Britain.

xxxConsists of 22,000,314 tons imported from the United States and 84 tons from Great Britain.

## ANTHRACITE COAL

Year	Central Ontario	Port Arthur	Fort Frances	Fort William	Total Ontario	Manitoba	Saskatchewan	Alberta	British Columbia & Yukon	Total Canada
1919	2,977,913	119,234	559	346,442	3,444,148	12,906	.....	66	136	4,972,283
1920	2,943,134	69,206	2,648	226,476	3,221,466	17,599	206	517	75	4,912,964
1921	2,809,182	62,782	138	198,108	3,070,217	33,473	254	66	251	4,567,370
1922	1,586,924	21,507	12	36,018	1,644,461	14,715	231	.....	1,261	2,693,957
1923	3,681,779	28,229	429	84,329	3,144,766	55,856	2,291	.....	174	5,167,881
1924	2,589,568	4,775	237	84,513	2,689,093	34,222	1,720	.....	687	4,183,594
1925	2,403,281	37	170	50,731	2,254,049	34,396	702	30	246	3,798,744
1926	2,458,674	.....	56	60,810	2,519,494	17,990	484	.....	5,202	4,242,932
1927	2,123,515	.....	31	79,283	2,202,849	15,885	484	.....	3,812	4,063,619
1928	2,179,022	.....	40	57,494	2,236,558	10,130	579	.....	2,241	3,737,333
1929	2,246,063	352	303	52,369	2,299,087	9,180	365	.....	597	4,019,917
1930	2,080,437	.....	224	45,241	2,125,922	8,323	367	.....	1,123	4,256,090
1931	1,615,643	.....	.....	18,302	1,633,945	3,695	.....	.....	33	3,178,141
1932	1,250,755	.....	3	12,677	1,263,435	3,800	.....	3	702	3,138,157
1933	1,129,041	.....	8	8,742	1,137,791	5,669	57	75	3,657	3,035,613
1934	1,374,881	.....	3,030	7,934	1,385,845	6,086	.....	.....	282	3,537,309
1935	1,370,119	.....	19	9,455	1,379,593	5,852	49	.....	1,600	3,451,318(e)
1936	1,436,613	.....	135	16,350	1,453,098	5,884	58	.....	1,151	3,530,040(f)
1937	1,608,653	.....	8	21,052	1,629,713	5,639	66	34	61	3,572,268(i)
1938	1,697,601	.....	69	16,050	1,713,720	4,674	39	.....	280	3,714,001(m)
1939	2,043,142	.....	297	18,459	2,061,898	4,696	.....	33	.....	3,977,805(p)
1940	2,033,585	.....	.....	10,571	2,044,156	4,466	34	.....	236	3,964,862(q)
1941	2,343,406	.....	.....	.....	2,362,433	10,021	.....	16	30	3,940,859
1942	2,807,479	.....	.....	.....	2,816,165	7,093	.....	23	.....	4,802,023
1943	2,502,024	.....	.....	.....	2,513,199	16,336	.....	7	110	4,458,519
1944	2,528,190	.....	42	2,932	2,535,976	9,723	.....	4	62	4,413,227
1945	2,008,208	.....	513	13,394	2,010,182	6,198	1	1	62	3,411,424x
1946	2,776,497	1,977	.....	.....	2,792,381	11,718	.....	.....	.....	4,639,347xx

xConsists of 3,383,042 tons imported from the United States and 28,382 from Great Britain.

xxConsists of 4,537,852 tons imported from the United States and 101,496 from Great Britain.

- (a) Includes imports into the Yukon Territory of 10 tons in July and 10 tons in October.
- (b) Consists of 9,168,428 tons imported from the United States, 380,645 tons imported from Great Britain, 43 tons imported from Alaska, 285 tons imported from Norway, 55 tons imported from Estonia and 1 ton imported from Poland.
- (c) Consists of 1,670,085 tons imported from the United States, 1,454,521 tons imported from Great Britain, 203,045 tons imported from Germany, 67,220 tons imported from Belgium and 54,447 tons imported from French Indo-China.
- (d) Includes imports into the Yukon Territory of 4 tons in April, 3 tons in May, 6 tons in June, 45 tons in July and 2 tons in October.

- (e) Consists of 10,042,127 tons imported from the United States, 149,905 tons imported from Great Britain, 9,421 tons imported from Germany, 361 tons imported from Norway, 124 tons imported from Denmark, 45 tons imported from Sweden, 35 tons imported from the Netherlands, 134 tons imported from Estonia, and 286 tons imported from Newfoundland.
- (f) Consists of 1,635,848 tons imported from the United States, 1,331,279 tons imported from Great Britain, 359,994 tons imported from Germany, 33,543 tons imported from Belgium, 122,572 tons imported from French Indo-China, 16,231 tons imported from the Netherlands, and 1,120 tons imported from China.
- (g) Includes imports into the Yukon Territory of 4 tons in March, 6 tons in June, 45 tons in July and 2 tons in October.
- (h) Consists of 12,333,378 tons imported from the United States, 56,073 tons from Great Britain, 54,061 tons from Germany, 113 tons from Norway, and 200 tons from Estonia.
- (i) Consists of 2,003,317 tons imported from the United States, 1,134,855 tons imported from Great Britain, 258,257 tons from Germany, 8,131 tons imported from Belgium, 154,495 tons imported from Russia, 78 tons imported from Morocco.
- (k) Includes imports into the Yukon Territory of 8 tons in March, 10 tons in July and 8 tons in October.
- (l) Consists of 9,644,020 tons imported from the United States, 65,957 tons from Great Britain, 34,258 tons from Germany, and 417 tons from Japan.
- (m) Consists of 1,973,610 tons from the United States, 1,199,131 tons from Great Britain, 407,031 tons from Germany, 34,182 tons from Belgium, 14,952 tons from Russia, 19,645 tons from Morocco, 37,594 tons from the Netherlands, and 30,302 tons from French Indo-China.
- (n) Includes imports into the Yukon Territory of 15 tons in July and 8 tons in December.
- (o) Consists of 9,836,110 tons imported from the United States, 67,483 tons from Great Britain, and 20 tons from Norway.
- (p) Consists of 2,605,765 tons from the United States, 1,034,901 tons from Great Britain, 293,602 tons from Germany, and 43,537 tons from French Indo-China.
- (q) Consists of 2,643,588 tons from the United States, and 1,321,274 tons from Great Britain.

Imports of Coal into Ontario, Manitoba, Saskatchewan, Alberta, British Columbia, Yukon and Canada, by months during 1946 (short tons):

## BITUMINOUS COAL

Month	Central Ontario	Port Arthur	Fort Frances	Fort William	Total Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total	Grand Total, Canada
January	517,300	.....	31,727	7,135	556,162	439	38	49	189	715	888,356
February	632,027	.....	19,410	.....	651,437	442	.....	.....	259	701	982,589
March	647,403	.....	22,602	.....	670,005	390	43	98	99	630	1,112,665
April	668,243	.....	18,886	10,179	697,308	204	85	48	279	616	980,472
May	131,870	.....	11,636	13,176	156,682	187	.....	.....	32	219	197,645
June	1,062,167	303	4,843	55,295	1,122,608	35	131	.....	.....	166	1,297,706
July	1,996,292	44,462	34,758	236,830	2,312,342	1,662	84	445	310	2,501	2,828,761
August	1,986,213	51,484	36,659	361,613	2,435,969	3,600	41	99	143	3,883	3,138,536
September	1,960,539	67,169	42,513	220,188	2,290,409	3,022	182	165	165	3,534	2,941,390
October	2,172,517	64,399	34,793	465,239	2,736,948	2,121	82	44	129	2,376	3,484,162
November	1,840,179	67,519	36,182	375,259	2,319,139	2,671	.....	.....	147	2,818	3,003,072
December	657,428	36,338	28,286	201,304	923,356	1,492	.....	90	38	1,620	1,145,044
Total	14,272,178	331,674	322,295	1,946,218	16,872,365	16,265	686	1,038	1,790	19,779	22,000,398x

## ANTHRACITE COAL

Month	Central Ontario	Port Arthur	Fort Frances	Fort William	Total Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total	Grand Total, Canada
January	170,964	.....	.....	.....	170,964	1,086	.....	.....	44	1,086	299,973
February	169,231	.....	.....	.....	169,231	791	.....	.....	.....	835	302,746
March	192,532	.....	.....	.....	192,532	678	.....	.....	.....	678	331,101
April	211,944	.....	.....	.....	211,944	255	.....	.....	.....	255	348,634
May	188,420	.....	.....	.....	188,420	433	.....	.....	.....	433	323,112
June	119,087	.....	.....	.....	119,087	707	.....	.....	.....	707	208,358
July	218,249	.....	468	.....	218,717	995	.....	.....	.....	995	389,948
August	320,125	.....	.....	.....	320,125	1,915	.....	.....	.....	1,915	579,369
September	318,800	.....	.....	.....	318,800	1,523	.....	.....	322	1,845	524,900
October	345,864	1,977	45	6,859	354,745	1,028	.....	.....	.....	1,028	560,111
November	292,948	.....	.....	6,535	299,483	1,274	.....	.....	.....	1,274	444,391
December	228,333	.....	.....	.....	228,333	1,033	.....	.....	.....	1,033	326,705
Total	2,776,497	1,977	513	13,394	2,792,381	11,718	.....	.....	366	12,084	4,639,348

## LIGNITE COAL

Month	Central Ontario	Port Arthur	Fort Frances	Fort William	Total Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total	Grand Total, Canada
January	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
March	70	.....	.....	.....	70	.....	.....	5	21	26	26
	.....	.....	.....	.....	.....	.....	.....	.....	41	41	111



	Total	70		70		97	102	172
April	.....	.....	.....	.....	.....	.....	.....	.....
May	.....	.....	.....	.....	.....	.....	.....	.....
June	.....	.....	.....	.....	.....	.....	.....	.....
July	.....	.....	.....	.....	.....	.....	.....	.....
August	.....	.....	.....	.....	.....	.....	.....	.....
September	.....	.....	.....	.....	.....	.....	.....	.....
October	.....	.....	.....	.....	.....	.....	.....	.....
November	.....	.....	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....	.....	.....
<b>Total</b>	<b>70</b>			<b>70</b>		<b>97</b>	<b>102</b>	<b>172</b>

## BRIQUETTES

January	9,465	340	87	9,892	5,641	16,468
February	11,903	266	89	12,258	4,330	17,358
March	8,698	...	...	8,698	412	9,110
April	2,531	84	85	2,700	177	2,877
May	150	...	...	2,150	...	150
June	3,393	...	...	3,393	542	4,445
July	1,757	87	88	1,932	5,256	7,461
August	12,819	392	2,482	15,693	13,914	33,012
September	18,036	44	2,528	20,608	19,232	43,184
October	16,561	217	88	16,866	3,963	3,963
November	8,935	214	...	9,149	4,635	17,870
December	2,403	424	...	2,827	1,478	5,596
Total	96,651	2,068	5,447	104,166	59,580	182,935

## TOTAL GRAND IMPORTATIONS

Bituminous .....	14,272,178	331,674	322,295	1,946,218	16,872,365	16,265	686	1,038	1,790	19,779	22,000,398
Anthracite .....	2,776,497	1,977	513	13,394	2,792,381	11,718			366	12,084	4,639,348
Lignite .....	70				70			5	97	102	172
Briquettes .....	96,651		2,068	5,447	104,166	59,580				59,580	182,935
Total .....	17,145,396	333,651	324,876	1,965,059	19,768,982	87,563	686	1,043	2,253	91,545	26,822,853*

Consists of 22,000,314 tons imported from the United States and 84 tons from Great Britain.

\*Consists of 4,537,852 tons imported from the United States and 101,496 tons from Great Britain.

NOTE: The above figures show the total imports and not the tonnages entered for consumption.

**MINERAL PRODUCTION IN ALBERTA DURING 1944 AND 1945**  
 Prepared in the Mining, Metallurgical and Chemical Branch, Ottawa, Canada

	1944		1945	
	Quantity	Value	Quantity	Value
<b>METALLICS:</b>				
Gold, fine ounces	51	\$ 1,963	7	\$ 269
Silver, fine ounces	4	2	1	
<b>NON-METALLICS:</b>				
Coal, short tons	7,428,708	26,814,937	7,800,151	27,751,377
Natural gas, M.cu.ft.	37,161,570	6,339,817	40,393,061	7,095,910
Peat moss, tons				
Petroleum, crude, barrels	8,727,366	14,468,061	7,979,786	13,169,692
Salt, tons	25,335	397,646	29,421	430,048
Sodium, sulphate, tons				
<b>CLAY PRODUCTS AND OTHER</b>				
<b>STRUCTURAL MATERIALS:</b>				
Cement, barrels	699,989	1,370,502	620,337	1,246,346
Clay products, barrels		1,143,577		1,401,875
Lime:				
Quicklime, tons	18,102	151,457	19,240	163,172
Hydrated, tons	750	7,500	615	6,150
Sand and gravel, tons	833,524	328,151	919,736	433,436
Stone, tons	12,726	43,049	13,528	54,962
<b>Total</b>		<b>51,066,662</b>		<b>51,753,237</b>

**PARTICULARS WITH REFERENCE TO THE COAL MINING INDUSTRY IN THE  
 PROVINCE OF ALBERTA, DURING THE YEAR ENDING DECEMBER 31, 1946**

**SUMMARY OF STATISTICS**

Tonnage stripped by farmers under domestic permits	28
Number of short tons of coal produced	8,824,455
Number of short tons of briquettes made	275,646
Number of short tons of coke produced	43,206
Number of short tons of shale produced	70,688
Number of coal mines in operation during the year	198
Number of mines opened during the year	14
Number of mines re-opened during the year	41
Number of mines closed during the year	35
Number of mines abandoned during the year	19
Number of Shale pits in operation during the year	5
Number of mines in operation at December 31st, 1946	175
59 mines or 29.80% of the total operating produced	0.29% of the output.
57 mines or 28.79% of the total operating produced	1.38% of the output.
15 mines or 7.58% of the total operating produced	1.19% of the output.
29 mines or 14.65% of the total operating produced	8.46% of the output.
9 mines or 4.54% of the total operating produced	7.75% of the output.
7 mines or 3.54% of the total operating produced	9.44% of the output.
9 mines or 4.54% of the total operating produced	18.00% of the output.
4 mines or 2.02% of the total operating produced	10.83% of the output.
9 mines or 4.54% of the total operating produced	42.66% of the output.
Average number of persons employed below ground	5,897
Average number of persons employed above ground	2,686
Number of separate accidents causing loss of life	11
Number of deaths caused by accidents above ground	2
Number of deaths caused by accidents below ground	10
Number of serious accidents above ground	5
Number of serious accidents below ground	71
Number of slight accidents above ground	27
Number of slight accidents below ground	101
Total purchased electric power (kilowatt hours)	46,012,415
Number of prosecutions instituted	24
Number of Provisional Overmen's Certificates issued during 1946	91
Number of Provisional Examiners' Certificates issued during 1946	46
Number of Provisional Miners' Certificates issued during 1946	103
Number of Miners' Permits issued during 1946	81
Number of Third Class Certificates issued during 1946	38
Number of Second Class Certificates issued during 1946	12
Number of First Class Certificates issued during 1946	3
Number of Mine Surveyors' Certificates issued during 1946	2
Number of Mine Electricians' Certificates issued during 1946	7
Number of Third Class Certificates issued to December 31, 1946	1,655
Number of Second Class Certificates issued to December 31, 1946	559
Number of First Class Certificates issued to December 31, 1946	283
Number of Mine Surveyors' Certificates issued to December 31, 1946	205
Number of Mine Electricians' Certificates issued to December 31, 1946	131
Total number of Certificates of Competency as Coal Miners issued to December 31, 1946	18,165
Number of Coal Miners' Certificates issued during 1946	858

**PARTICULARS OF WORK DONE BY FARMERS STRIPPING COAL UNDER  
DOMESTIC PERMIT**

Tonnage .....	28
Number of days worked during the year .....	5
Number of men employed during the year .....	4
Total number of shifts worked .....	6
Total number of permits issued .....	5
Permits issued in 1945 and used in 1946 .....	2

The above coal was stripped for domestic use only, and not for sale.

**PARTICULARS OF WORK DONE IN SHALE MINES IN PROVINCE DURING 1946**

Output of shale (in tons) used making bricks .....	52,526
Output of shale (in tons) used making hollow tile .....	18,162
Number of shifts worked .....	22,538
Average number of men employed .....	129
Explosives used (pounds), 40% dynamite .....	3,760
Explosives used (pounds), monobel .....	6,475
Number of shots fired using fuse .....	2,089
Total number of bricks made .....	20,297,280
Total number of bricks put to stock .....	90,000
Total number of bricks lifted from stock .....	180,370
Bricks sold for use in: Alberta .....	10,402,002
British Columbia .....	1,931,599
Saskatchewan .....	5,935,381
Manitoba .....	1,760,480
Ontario .....	358,188

**Total .....** 20,387,650

Hollow tile made (tons) .....	18,162
Hollow tile put to stock .....	1,239
Hollow tile sold .....	16,923

In the following tables the short ton of 2,000 lbs. is used in all cases.

Year	Output in tons for N.W.T. (Alta. & Sask.)	Output in tons for Alberta
1901	346,649	.....
1902	510,674	.....
1903	622,939	.....
1904	782,931	.....
1905		811,228
1906		1,385,000
1907		1,834,745
1908		1,845,000
1909		2,174,329
1910		3,036,757
1911		1,694,564
1912		3,446,349
1913		4,306,346
1914		3,821,739
1915		3,434,891
1916		4,638,604
1917		4,863,414
1918		6,148,620
1919		5,022,412
1920		6,908,923
1921		5,937,195
1922		5,976,432
1923		6,866,923
1924		5,203,713
1925		5,883,394
1926		6,508,908
1927		6,936,780
1928		7,334,179
1929		7,147,250
1930		5,755,911
1931		4,564,290
1932		4,870,030
1933		4,714,784
1934		4,748,848
1935		5,462,973
1936		5,696,375
1937		5,551,682
1938		5,230,015
1939		5,518,105
1940		6,205,088
1941		6,970,064
1942		7,754,279
1943		7,677,982
1944		7,427,433
1945		7,801,248
1946		8,824,455

## THE MINES BRANCH

CLASSIFICATION OF OUTPUT DURING THE YEARS 1901 TO 1946 (INCLUSIVE)

Year	Domestic	Domestic and Bituminous	Sub-bituminous	Bituminous	Anthracite	Coal used in Coke production	Briquettes	Coke
1901	.....	331,907	.....	.....	14,742	.....	.....	.....
1902	.....	494,087	.....	.....	16,587	.....	.....	.....
1903	.....	617,754	.....	.....	5,185	.....	.....	.....
1904	.....	759,568	.....	.....	23,363	.....	.....	.....
1905	.....	972,686	.....	.....	43,653	.....	.....	46,640
1906	.....	602,780	.....	546,623	235,597	71,292	.....	69,844
1907	.....	639,335	.....	939,295	256,115	103,930	49,585	73,782
1908	.....	584,334	.....	1,001,571	249,095	112,887	36,261	75,657
1909	.....	763,673	.....	1,197,399	213,257	128,397	89,785	87,812
1910	.....	878,011	.....	1,896,961	261,785	148,104	108,996	121,578
1911	.....	964,700	.....	1,649,745	80,119	196,349	48,200	35,984
1912	.....	1,341,389	.....	1,926,371	178,589	61,591	90,000	105,684
1913	.....	1,763,225	.....	2,374,401	168,720	170,818	130,861	65,167
1914	.....	1,697,401	.....	1,953,367	170,971	104,012	109,082	29,058
1915	.....	1,692,922	.....	1,628,237	125,732	38,538	83,180	23,826
1916	.....	2,172,801	.....	2,335,959	140,544	57,105	195,939	41,950
1917	.....	2,537,829	.....	2,906,868	118,717	51,905	93,818	31,630
1918	.....	3,035,061	.....	2,982,334	131,225	53,462	100,470	32,858
1919	.....	3,651,009	.....	2,323,787	85,616	.....	70,033	.....
1920	.....	3,349,309	.....	3,419,021	130,594	.....	101,693	.....
1921	.....	2,943,141	.....	2,897,380	96,674	.....	62,466	.....
1922	.....	2,086,669	.....	2,214,273	40,417	.....	33,663	.....
1923	.....	3,086,669	.....	3,285,313	107	.....	39,638	.....
1924	.....	3,161,741	635,073	1,321,288	.....	.....	791	.....
1925	.....	3,086,660	459,869	2,145,200	.....	.....	11,381	.....
1926	.....	3,156,359	585,765	2,858,508	.....	287	20,649	.....
1927	.....	3,160,029	490,371	2,984,419	.....	.....	24,768	.....
1928	.....	3,357,171	595,190	3,215,481	.....	.....	28,167	.....
1929	.....	3,378,200	740,498	3,093,393	.....	.....	24,111	.....
1930	.....	3,385,749	668,108	3,093,393	.....	.....	15,102	.....
1931	.....	2,874,090	603,331	2,278,490	.....	.....	13,582	.....
1932	.....	2,246,544	471,389	1,846,357	.....	.....	14,935	2,183
1933	.....	2,576,831	559,479	1,733,720	.....	.....	15,906	49,279
1934	.....	2,434,047	554,141	1,726,596	.....	.....	18,812	59,703
1935	.....	2,295,566	537,542	1,915,740	.....	.....	18,812	63,428
1936	.....	2,647,912	566,436	2,248,625	.....	.....	21,015	65,349
1937	.....	2,841,231	566,486	2,299,658	.....	.....	27,044	65,967
1938	.....	2,631,150	506,529	2,414,003	.....	.....	39,239	68,692
1939	.....	2,453,263	488,912	2,287,850	.....	.....	103,498	68,913
1940	.....	2,449,199	512,105	2,556,801	.....	.....	48,510	70,753
1941	.....	2,537,205	598,686	3,069,197	.....	.....	66,127	.....

1941	.....	2,713,254	.....	585,453	3,671,357	.....	105,390	126,188	70,354
1942	.....	3,213,113	.....	733,547	3,807,619	.....	107,410	197,905	71,572
1943	.....	3,416,037	.....	791,952	3,469,393	.....	101,132	222,106	67,348
1944	.....	3,146,801	.....	729,427	3,551,205	.....	101,633	253,592	67,821
1945	.....	.....	.....	3,200,485	4,600,763	.....	64,280	250,274	43,180
1946	.....	.....	.....	3,434,859	5,389,596	.....	64,878	275,646	43,206

1901 to 1905 includes output from Alberta and Saskatchewan. Previous to 1922 sub-bituminous coal was included in bituminous coal. It will be noted from the above table that a re-classification of coal was made, and they now come under the heading of "Bituminous" and "Sub-bituminous" coal.

During the year 1909 a strike affecting all the larger mines in the Province, lasted for a period of three months.  
 During the year 1911 a strike affecting all the larger mines in the Province, lasted for a period of eight months.  
 During the year 1917 a strike affecting all the larger mines in the Province, lasted for a period of three months.  
 During the year 1919 a strike affecting all the larger mines in the Province, lasted for a period of three months.  
 During the year 1922 a strike affecting all the larger mines in the Province, lasted for a period of five months.  
 During the year 1924 a strike affecting all the larger mines in the Province, lasted for a period of six and one-half months.



How the total output of BITUMINOUS COAL from the Province was disposed of by Areas during 1946:

Areas	Sold for Consumption in:								Total Sales	Used under Colliery Boilers	Used by Colliery R.R.	Making Briquettes	Making Coke	Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total Output	
	Alberta	British Columbia	Saskat- chewan	Manitoba	Ontario	China	Ship's Bunkers	United States											Sold to Railroad Companies
Group 1:	14,069	11,670	3,231	10,199	13,658				151,357	204,184	19,678	560	88,846	5,627	398	5,685		313,608	
Cascade .....	553								155,360	155,913	7,356		170,277	1,425		1,603		333,368	
Group 2:	59,506	201,622	26,511	101,227	46,188				1,526,470	2,095,672	18,963								
Crownst .....	13,474	112,726	2,403	51,381	59,310	37,865	1,092	95,191	1,526,470	2,095,672	18,963		64,878	9,128	85,981	7,311	10,570	2,256,741	
Mountain Park .....							20,678	417	798,218	1,058,607	50,858							1,109,465	
Group 3:	28,386	321,387	27,049	68,071	28,746			16,862	261,802	752,303	52,341	675		6,748	25,596	4,676		832,987	
Coalspur .....	1,626									1,626	28			6	2			1,662	
Halcourt .....	228,154	43,989	145,759	31,301	2,571			14,836		466,610	2,674			930	226	822		469,618	
Lethbridge .....	1,305								1,305							67		1,238	
Morley .....	1,856								1,856									1,885	
Pekisko .....	346								346					9	20			488	
Pincher .....	9,341	907	29,563	19,236	1,232					60,279	7,867			69	73			68,146	
Saunders .....	388									388	2							390	
No Area .....																			
Total .....	359,004	692,301	234,516	281,415	151,705	37,865	21,770	127,306	2,893,207	4,799,089	159,767	1,235	259,123	64,888	23,942	112,296	20,164	10,570	5,389,596

## THE MINES BRANCH

How total output of SUB-BITUMINOUS COAL from the Province was disposed of by Areas during 1946:

Areas	Sold for Consumption in					Used under Colliery Bollers	Used by Colliery R.R.	Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total Output
	Alberta	British Columbia	Saskat- chewan	Manitoba	Ontario	United States						
Group 4:												
Ardley .....	12,051	576	554	598	47	...	...	77	100	...	...	12,228
Big Valley .....	7,666	23,675	29,583	25,522	22,438	...	...	665	3,562	...	...	10,106
Brooks .....	25,299	9,438	9,352	1,339	2,286	...	...	525	1,540	...	...	130,604
Carbon .....	51,161	6,582	1,018,195	286,475	64,097	5,602	...	1,626	766	...	...	78,149
Champion .....	346,095	206,567	1,018,195	286,475	64,097	5,602	...	2,178	11,805	4,808	740	1,946,170
Drumheller .....	448,575	10,113	3,880	7,601	3,177	...	...	20	100	18,25	...	478,900
Edmonton .....	16,676	...	...	...	...	...	...	...	...	...	...	16,676
Gleichen .....	1,084	...	...	...	...	...	...	...	...	...	...	1,084
Milk River .....	46,001	4,213	2,056	570	3,254	...	...	6	85	...	...	60,106
Pembina .....	31,672	30,044	43,119	38,476	88,380	4,363	...	17,551	36,263	19	...	289,849
Taber .....	1,389	...	...	...	...	...	...	...	...	...	...	1,389
Wetaskiwin .....	79	...	...	...	...	...	...	...	...	...	...	79
Whitecourt .....	...	...	...	...	...	...	...	...	...	...	...	...
Group 5:												
Camrose .....	67,670	1,508	12,127	307	8,633	...	...	...	296	...	...	90,766
Castor .....	48,018	249	15,480	4,030	1,099	...	...	373	1,597	...	...	71,166
Pakowki .....	111	...	...	...	...	...	...	...	...	...	...	123
Redcliff .....	6,017	...	1,511	624	163	...	112	...	70	...	...	8,427
Rochester .....	5,879	...	...	...	...	...	...	...	2,824	...	...	5,949
Sheerness .....	27,008	...	26,361	...	...	...	...	...	...	...	...	56,193
Tofield .....	99,509	3,729	50,268	11,776	2,858	...	...	69	122	14	...	168,640
Westlock .....	730	...	...	...	...	...	...	...	...	...	...	907
Total .....	1,249,292	290,112	1,214,486	377,318	196,432	9,965	22,328	23,090	59,130	6,666	740	3,434,859







How the total output of SUB-BITUMINOUS COAL was disposed of by months during 1946:

Months	Sold for Consumption in						Total Sales	Used under Boilers	Used by R.R.	Put to Stock	Put to Waste	Lifted from Stock	Lifted from Waste	Total Output
	Alberta	British Columbia	Saskatchewan	Manitoba	Ontario	United States								
January	157,702	34,597	150,460	50,186	36,157	719	429,821	2,318	32	8,660	17,117	429	...	457,519
February	130,379	25,754	133,847	43,363	29,385	130	362,858	2,159	38	2,445	8,643	1,685	...	374,458
March	81,480	23,934	102,431	34,080	8,096	214	250,235	1,931	19	747	2,864	1,407	4	254,385
April	59,479	19,053	82,593	22,390	20,137	243	203,895	1,624	...	472	3,761	556	...	209,196
May	51,231	19,321	82,817	23,281	10,489	705	187,844	1,625	...	364	1,972	26	...	191,779
June	53,505	21,222	76,745	23,725	8,002	137	185,336	1,712	...	561	2,54	90	...	187,774
July	54,790	16,379	54,994	18,868	14,283	137	159,314	1,517	...	238	3,317	1,063	...	163,323
August	90,833	25,500	101,569	30,572	14,626	88	263,188	1,611	...	1,642	2,304	143	...	268,402
September	104,378	22,626	93,634	26,929	14,867	174	262,608	1,664	17	1,613	3,837	269	...	269,470
October	125,874	23,698	102,416	32,780	15,276	125	300,139	1,801	6	3,936	4,530	14	287	310,131
November	163,338	30,794	108,786	31,082	14,685	418	352,093	2,116	...	2,025	5,594	...	226	361,602
December	173,303	27,244	124,194	38,072	10,429	7,012	380,254	2,249	...	387	4,937	984	223	386,620
Total	1,249,292	290,112	1,214,486	377,318	196,432	9,965	3,337,605	22,328	112	23,090	59,130	6,666	740	3,434,859
% of Total Sales	37.43	8.69	36.39	11.31	5.88	.30								

## THE MINES BRANCH

Amount of COAL sold during the years 1915 to 1946 (inclusive) for consumption in:

Year	Alberta	British Columbia	Saskatchewan	Manitoba	Ontario	North-West Territories	Quebec	United States	To Railroads	Alaska	Total
1915	2,129,130	54,868	685,898	64,816	.....	.....	.....	25,047	.....	.....	2,969,751
1916	2,866,679	56,413	1,007,765	97,265	.....	.....	.....	61,092	.....	.....	4,119,205
1917	2,813,413	76,397	1,139,771	249,872	.....	.....	.....	93,081	.....	.....	4,372,534
1918	3,440,194	101,189	1,372,439	511,168	629	.....	.....	133,276	.....	.....	5,558,855
1919	2,991,110	95,461	1,115,329	314,290	308	.....	30	121,212	.....	.....	4,637,710
1920	1,647,202	128,850	1,310,146	600,962	13,911	.....	.....	152,610	2,516,555	.....	2,023,204
1921	1,415,861	116,089	1,294,441	495,388	9,898	.....	.....	133,823	2,076,291	.....	5,488,704
1922	1,443,942	107,820	1,371,249	520,518	21,573	.....	102	105,514	2,076,291	.....	5,647,109
1923	1,382,788	108,326	1,223,454	553,649	52,334	.....	.....	83,557	3,110,121	.....	6,514,219
1924	1,431,327	114,186	1,189,788	510,407	16,525	.....	.....	39,142	1,613,574	.....	4,914,949
1925	1,440,032	117,037	1,297,753	509,655	28,831	.....	.....	40,507	2,139,716	.....	5,573,431
1926	1,325,290	127,858	1,296,181	591,267	74,559	.....	221	48,216	2,706,440	.....	6,170,032
1927	1,508,089	187,028	1,427,904	612,542	22,680	.....	.....	45,160	2,759,765	.....	6,653,168
1928	1,409,475	262,198	1,511,141	605,125	44,265	.....	.....	52,265	3,054,239	.....	6,938,708
1929	1,446,555	236,840	1,455,213	588,647	55,647	.....	33	51,625	2,923,827	.....	6,758,075
1930	1,234,382	227,385	1,221,542	541,537	29,784	.....	32	44,291	2,120,237	.....	4,266,660
1931	1,020,694	171,610	905,574	422,761	27,036	.....	100	30,434	1,668,451	.....	5,419,190
1932	1,134,311	136,188	1,097,382	497,006	20,583	.....	133	27,366	1,619,921	.....	4,532,892
1933	1,123,357	120,911	1,052,910	449,681	39,437	21	32	18,449	1,599,061	.....	4,304,838
1934	1,087,898	127,638	986,639	391,639	55,947	.....	.....	13,739	1,687,850	.....	4,350,874
1935	1,246,959	221,758	1,120,816	435,813	64,659	.....	.....	24,712	1,960,555	.....	5,075,272
1936	1,356,690	244,828	1,238,730	450,740	65,886	.....	.....	27,397	1,969,569	.....	5,353,940
1937	1,376,054	269,023	1,085,812	437,954	62,521	82	.....	41,328	2,028,389	.....	5,251,163
1938	1,278,932	238,435	1,011,207	413,663	74,111	83	.....	32,507	1,871,852	.....	4,920,800
1939	1,241,618	239,227	1,044,367	409,046	90,206	.....	.....	33,139	2,109,684	.....	5,167,287
1940	1,311,644	237,642	1,019,035	354,857	133,587	14	.....	35,354	2,720,793	.....	5,812,926
1941	1,335,606	304,928	1,052,913	430,663	234,606	.....	.....	32,742	3,090,290	.....	6,481,748
1942	1,474,795	652,222	1,269,669	580,336	231,258	.....	.....	98,197	2,864,586	.....	7,171,063
1943	1,560,212	864,911	1,455,612	627,368	1,190	.....	.....	414,627	2,098,535	.....	7,071,753
1944	1,424,293	678,960	1,225,075	533,027	10,163	.....	.....	286,664	2,583,101	1,064	6,742,643
1945	1,567,940	868,396	1,242,001	541,882	278,814	.....	.....	162,698	2,416,803	.....	7,098,928
1946	1,608,296	982,413	1,449,002	658,733	348,137	.....	.....	137,271	2,893,207	.....	8,136,694

NOTE: Previous to 1920 Railroad Coal was included in Sales in Alberta.

Included in the above totals are 49,298 tons for Ship's Bunkers in 1943, 20,296 tons in 1944, 20,394 tons in 1945, and 21,770 tons in 1946.

The above also includes 37,865 tons shipped to China.

Coal produced by years from 1942 to 1946 inclusive:

## BITUMINOUS COAL FIELD

Area	1942	1943	1944	1945	1946
Group 1:					
Cascade	337,659	343,476	363,314	318,036	313,608
Nordeg	367,084	320,549	351,869	315,857	333,368
Group 2:					
Crowsnest	2,170,222	1,962,557	1,943,068	1,856,540	2,256,741
Mountain Park	932,403	843,411	892,954	970,303	1,109,465
Group 3:					
Coalspur	658,061	713,082	651,340	617,286	832,987
Halcourt	2,403	1,873	553	649	1,662
Lethbridge	470,065	579,234	481,896	451,538	469,618
Morley				1,603	1,238
Pekisko	10,786	11,802	5,864	2,739	1,885
Pincher	606	451	660	231	488
Prairie Creek		1,828	7,637	6,013	
Saunders	64,094	64,789	63,926	59,926	68,146
No Area				42	390
Total	5,013,363	4,843,052	4,783,081	4,600,763	5,389,596

## SUB-BITUMINOUS COAL FIELD

Group 4:					
Ardley	5,938	10,239	7,109	14,319	12,228
Big Valley	4,708	12,836	5,471	7,824	10,106
Brooks	14,097	30,381	88,364	220,114	130,604
Carbon	63,750	68,391	46,379	71,733	78,149
Champion	12,369	11,776	7,177	7,329	7,348
Drumheller	1,785,021	1,838,738	1,676,132	1,722,816	1,946,170
Edmonton	514,479	457,002	389,330	408,086	478,900
Gleichen	21,979	21,369	16,430	18,100	16,676
Milk River	1,368	2,634	1,629	2,323	1,084
Pembina	58,980	53,611	72,187	65,009	60,106
Taber	13,191	20,596	75,066	243,978	289,849
Wetaskiwin	1,783	3,272	1,085	1,595	1,389
Whitecourt	288	179	287	150	79
Group 5:					
Camrose	47,627	63,834	65,295	84,836	90,766
Castor	42,482	59,764	40,450	85,605	71,166
High Prairie		191	588	85	
Pakowki	469	419	216	385	123
Redcliff	24,969	28,165	10,638	10,470	8,427
Rochester	3,289	7,287	4,257	7,595	5,949
Sheerness	50,490	58,933	49,786	60,223	56,193
Sexsmith					
Tofield	73,368	85,313	101,895	167,778	168,640
Westlock				150	907
No Area	271		2,581		
Total	2,740,916	2,834,930	2,664,352	3,200,485	3,434,859

## THE MINES BRANCH

Total output of BITUMINOUS COAL by areas during each month:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1:													
Cascade .....	28,779	27,685	30,323	16,829	28,472	26,472	25,866	28,893	26,148	27,117	24,592	22,432	313,608
Nordeg .....	27,445	28,597	30,662	30,098	30,355	26,783	26,194	25,213	23,751	29,624	26,456	26,190	333,368
Group 2:													
Crownsnest ..	203,166	197,896	215,178	195,039	200,595	191,281	206,959	211,977	179,998	187,287	137,421	129,944	2,256,741
Mountain Park .....	87,517	86,384	88,980	90,609	101,108	88,800	103,342	109,765	99,286	95,456	78,391	79,827	1,109,465
Group 3:													
Coalspur .....	71,852	69,540	77,586	67,636	67,091	72,532	67,916	77,231	70,064	69,629	54,356	67,554	832,987
Halcourt .....	318	89	34	4		35	42	60	230	249	248	353	1,662
Lethbridge .....	49,835	45,722	41,965	33,863	36,168	36,729	26,381	38,819	38,787	39,918	39,668	41,763	469,618
Morley .....	151	198	195	77	71	66	90	91	81	96	38	84	1,238
Pekisko .....	180	369	216	198	217	198	205	130	125		28	19	1,885
Pincher .....	60	36	24		37	34	35	31	78	43	42	68	488
Prairie Creek .....													
Saunders .....	7,109	5,834	6,884	5,092	6,062	5,712	4,473	5,838	4,383	5,709	5,581	5,469	68,146
No Area .....		191								10	110	79	390
Total	476,412	462,350	492,238	439,445	470,176	418,642	461,503	498,048	442,931	455,138	366,931	375,782	5,389,596

**Total output of SUB-BITUMINOUS COAL by areas during each month:**

[illegible]

Total output of COAL, COKE and BRIQUETTES during the year:

Coal	933,931	836,808	746,623	648,641	661,995	636,416	624,826	766,650	712,041	765,269	728,533	762,402	8,894,455
Coke	2,826	3,106	3,940	3,564	4,004	3,426	3,708	3,496	3,425	3,818	3,123	4,770	43,206
Briquettes	24,361	24,414	24,412	21,128	26,245	22,122	26,510	23,811	18,250	23,606	20,388	20,399	275,646

Total Sales of BITUMINOUS COAL for consumption by Railroad Companies:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1:													
Cascade .....	13,277	12,604	13,560	8,948	15,405	12,862	12,667	12,776	11,804	13,721	12,165	11,568	151,357
Nordeg .....	12,221	13,266	16,217	14,584	12,947	12,901	8,592	10,766	12,856	13,082	13,726	14,242	155,360
Group 2:													
Crowsnest .....	142,024	136,995	143,252	142,250	141,804	123,567	141,103	139,931	123,700	127,980	90,009	73,855	1,526,470
Mountain Park .....	70,825	70,377	75,173	77,141	75,377	48,108	67,561	64,964	69,520	75,746	57,326	46,100	798,218
Group 3:													
Coalspur .....	17,765	14,509	24,570	20,978	24,964	25,725	22,317	28,200	25,504	24,629	13,280	19,361	261,802
Total .....	256,112	247,711	272,772	263,901	270,497	223,163	252,240	256,637	243,384	255,158	186,506	165,126	2,893,207

Total amount of Bituminous Coal disposed of by areas during each month for consumption in Alberta:

LUMP COAL

Group 1:													
Cascade .....	147	114	87	68	61	45	62	107	95	130	244	162	1,322
Group 2:													
Crowsnest .....	198	273	139	160	111		44	401	211		287	232	2,056
Mountain Park .....	322	299	237	239	138	143	111	119	242	198	374	276	2,698
Group 3:													
Coalspur .....	1,741	2,025	1,783	1,181	1,397	1,269	1,116	966	1,453	1,239	918	1,530	16,618
Halcourt .....	293	65	26	4		24	35	40		207	233	272	1,199
Lethbridge ..	11,481	8,570	5,576	5,435	5,694	7,273	5,970	9,234	9,451	8,781	9,105	9,333	95,903
Pekisko .....	10												10
Pincher .....					32	24	21	23	47	37	32	43	259
Saunders .....	635	553	570	160	171	193	335	296	247	383	559	418	4,520
Total .....	14,827	11,899	8,418	7,247	7,604	8,971	7,694	11,186	11,746	10,975	11,752	12,266	124,585





## SLACK COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1: Cascade .....	1,541	765	245	321	898	833	875	960	1,002	659	537	508	9,144
Group 2: Crowsnest .....	2,440	3,181	1,211	80	294	2,710	2,866	3,234	1,827	441	209	2,085	20,578
Mountain Park .....				100					408				508
Group 3: Coalspur .....	85	301	411	331	83	83		166	127	582	374	307	2,850
Halcourt .....	3									27	15	20	65
Lethbridge .....	8,606	7,125	7,034	5,851	6,334	6,792	4,216	7,608	7,106	7,035	6,866	7,797	82,370
Pekisko .....		66	98	35	73			23	33		32	38	436
Saunders .....	68										4		4
Total .....	12,743	11,438	8,969	6,718	7,682	10,418	7,957	11,991	10,503	8,744	8,037	10,755	115,955

## Total amount of Sub-Bituminous Coal disposed of by areas during each month for consumption in Alberta:

## LUMP COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4: Ardley .....	574	354	208	146	13	54	97	248	453	642	793	820	4,402
Big Valley .....	2,376	1,243	141	119	105	146	492	1,738	2,559	3,371	5,044	2,825	20,759
Brooks .....	3,578	3,797	1,314	475	880	1,380	1,731	2,273	3,608	3,629	2,677	4,182	29,524
Carbon .....	606	537	222	229	193	304	398	502	438	535	584	785	5,333
Champion .....	19,613	17,018	12,988	8,519	9,236	10,987	7,980	16,514	13,180	14,970	17,234	18,273	166,512
Drumheller .....	21,507	20,386	12,782	5,165	4,627	6,875	7,642	13,409	15,375	16,729	18,022	20,539	163,058
Edmonton .....	458	435	190	29	17	13	25	42	42	516	504	632	2,861
Gleichen .....	1,890	1,270	855	224	342	308	1,022	638	1,111	1,203	1,406	1,442	11,711
Pembina .....	1,738	853	48	322	20	15	32	418	2,322	2,170	2,128	3,866	13,932
Group 5: Camrose .....	4,400	3,823	1,004	291	335	455	807	2,485	3,928	4,786	5,121	4,368	31,803
Castor .....	2,729	2,005	485	245	211	198	478	970	657	596	2,015	2,063	12,682
Redcliff .....	238	102	44	30	70	576	861	993	757	777	995	538	5,981
Rochester .....	444	54		4		3	54	3	54	334	598	536	2,377
Sheerness .....	1,075	728	225	206	64	38	108	320	996	1,901	553	1,417	7,631
Tofield .....	4,491	1,878	475	148	133	68	67	333	1,863	3,626	10,048	9,417	32,547
Total .....	66,317	54,775	31,035	16,152	16,246	21,417	21,718	40,869	47,343	55,785	67,752	71,703	511,113



NUT COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4:													
Ardley .....	223	213	110	127	10	27	33	189	318	423	552	438	2,663
Big Valley .....	628	391	676	410	340	447	116	249	249	329	572	296	1,977
Brooks .....	112	121	62	64	66	86	118	469	873	677	689	1,293	7,988
Champion .....	10,263	8,583	8,980	6,499	5,174	5,840	5,172	10,608	8,372	7,845	8,558	8,014	1,193
Drumheller .....	13,902	13,055	10,707	6,391	5,354	5,286	5,819	8,592	9,842	11,909	14,716	15,868	94,118
Edmonton .....	376	353	129	25	25	459	504	30	30	40	32	44	121,441
Gleichen .....	933	655	539	324	260	15	2	707	744	1,107	1,005	1,121	1,059
Pembina .....	650	217	3	150	15	55	5	153	785	557	817	643	8,338
Taber .....	53	44	16	5	.....	.....	.....	5	5	27	60	55	4,047
Wetaskiwin .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	270
Group 5:													
Camrose .....	2,375	1,999	1,425	774	1,001	708	1,011	1,331	2,144	3,002	4,448	4,322	24,540
Castor .....	384	164	66	46	32	29	86	170	139	39	425	334	1,914
Rochester .....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Sheerness .....	167	121	91	53	51	52	58	7	158	483	143	216	1,600
Tofield .....	977	691	180	3	.....	122	163	92	702	830	2,236	2,002	7,998
Westlock .....	40	.....	.....	.....	.....	.....	.....	.....	.....	23	5	8	76
Total .....	31,083	27,581	22,985	14,895	12,303	13,058	13,657	22,474	24,657	27,417	34,369	34,764	279,243

## SLACK COAL

[illegible]

**Total amount of Bituminous Coal disposed of by areas during each month for consumption in British Columbia:**

**LUMP COAL**

	Group 1:	Group 2:	Group 3:	Total
Cascade				
Group 2:				
Crowsnest	1,565			
Mountain Park	308			
Group 3:				
Coalspur	14,178			
Leathbridge	2,465			
Saunders	179			
Total	18,695			

## THE MINES BRANCH

## MINE-RUN COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1: Cascade .....	273	246	237	.....	147	72	120	102	482	173	329	324	2,505
Group 2: Crownsnest .....	1,962	2,178	1,439	1,171	1,993	985	1,126	1,425	1,142	671	722	982	15,796
Mountain Park .....	.....	287	333	.....	.....	.....	3,004	.....	9,260	.....	241	11,235	24,360
Total .....	2,235	2,711	2,009	1,171	2,140	1,057	4,250	1,527	10,884	844	1,292	12,541	42,661

## NUT COAL

Group 1: Cascade .....	1,042	849	960	365	1,216	634	213	922	734	662	949	480	9,026
Group 2: Crownsnest .....	3,568	3,479	3,664	2,595	3,333	3,049	1,635	1,639	1,591	2,067	1,583	1,560	29,763
Mountain Park .....	2,397	1,811	1,694	2,645	688	1,053	1,857	1,993	1,752	2,366	1,874	1,491	21,621
Group 3: Coalspur .....	17,870	17,250	17,316	13,252	10,770	11,906	14,072	11,592	11,316	12,158	10,782	12,906	161,190
Lethbridge .....	1,105	818	915	682	620	725	950	1,182	409	897	690	909	9,902
Saunders .....	.....	35	.....	.....	.....	35	.....	.....	.....	.....	33	.....	103
Total .....	25,982	24,242	24,549	19,539	16,627	17,402	18,727	17,328	15,802	18,150	15,911	17,346	231,605

## SLACK COAL

Group 1: Cascade .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Group 2: Crownsnest .....	12,334	13,604	12,659	13,650	9,526	12,243	13,848	16,644	11,053	11,178	8,280	4,868	139,887
Mountain Park .....	5,347	5,364	4,464	3,149	5,234	6,968	.....	7,357	5,922	5,789	6,643	6,669	62,906
Group 3: Coalspur .....	2,137	1,738	1,934	1,026	725	1,030	531	1,212	1,966	1,454	3,012	3,533	20,298
Lethbridge .....	434	377	597	447	518	448	225	153	439	527	376	451	4,992
Saunders .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total .....	20,252	21,083	19,654	18,272	16,003	20,689	14,604	25,366	19,380	18,948	18,311	15,521	228,083



NUT COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4:													
Big Valley	33	35	30			51	43					115	307
Brooks	1,012	282	749			39	602	879	596	881	1,515	1,028	6,834
Carbon	135	635	749	278	237	514	132	393	263	171	265	84	3,856
Drumheller	6,835	6,186	7,620	5,983	6,559	6,751	4,062	6,587	5,557	5,783	7,911	6,069	75,853
Edmonton	296	463	395	212	461	583	564	475	626	348	573	566	5,562
Pembina	42	154				165	681	85	44	87	336	228	1,794
Taber	1,978	1,049		81			754	935	1,357	968	1,774	895	9,791
Group 5:													
Canrose			42			43		44	96	274	132	235	866
Castor		46								39	129	212	690
Tofield	264											86	86
Total	10,595	8,772	8,836	6,554	7,257	8,146	6,838	9,398	8,261	8,829	12,635	9,518	105,639

SLACK COAL

Group 4:													
Brooks	1,532	432	1,674	1,246		89	41	208	338	339	83	285	3,347
Drumheller	1,104	789			810	838	365	1,274	721	607	769	534	10,731
Total	2,636	1,221	1,674	1,246	810	927	406	1,482	1,059	946	852	819	14,078

Total amount of Bituminous Coal disposed of by areas during each month for consumption in Saskatchewan:

LUMP COAL

Group 1:													
Cascade	39	48	91	46							89		313
Group 2:													
Crowsnest	882	224	328	41	270	1,098	485	982	1,126	1,059	361	966	7,822
Mountain Park	40		44							43		42	169
Group 3:													
Coalspur	463	462	455	291	453	287	242	288	505	126	252	733	4,557
Lethbridge	10,688	10,843	10,028	6,691	7,143	7,306	4,813	7,124	8,309	9,253	8,943	9,293	100,434
Saunders	1,517	1,142	1,463	1,211	1,380	1,505	868	1,199	1,235	1,239	1,049	1,351	13,159
Total	13,629	12,719	12,409	8,280	9,246	10,196	6,408	9,593	11,175	11,720	10,694	12,385	128,454





## THE MINES BRANCH

Total amount of Sub-Bituminous Coal disposed of by areas during each month for consumption in Saskatchewan:  
LUMP COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4:													
Big Valley	5,509	2,330	368	325	233	40	413	1,561	1,846	1,789	47	93	322
Brooks	140	99	368	325	233	40	413	1,561	1,846	1,789	47	93	17,721
Carbon	58,197	54,911	51,862	41,925	44,052	40,997	26,177	48,833	42,367	42,908	416	283	2,324
Drunnheller	416	207	207	207	85	213	360	587	165	416	47	47	535,104
Edmonton	416	207	207	207	85	213	360	587	165	416	47	47	3,687
Pembina	416	207	207	207	85	213	360	587	165	416	47	47	514
Taber	5,881	3,356	753	753	753	753	86	875	1,953	2,532	1,889	2,935	20,260
Group 5:													
Camrose	5,506	42	89	89	197	205	291	360	865	2,262	4,365	5,377	6,416
Castor	283	498	578	658	197	205	291	360	865	2,262	4,365	5,377	11,654
Redcliff	1,553	1,752	203	41	41	41	41	41	41	41	41	41	1,122
Sheerness	4,918	4,694	203	41	41	41	41	41	41	41	41	41	10,344
Tofield													22,623
Total	82,448	70,071	53,307	43,702	44,567	41,544	28,279	53,658	49,333	52,691	54,902	57,589	632,091
MINE-RUN COAL													
Group 4:													
Drunnheller	415	456	541	216	245	124	167	209	84	123	164	248	2,992
Edmonton	323	527	527	527	527	527	527	527	527	527	527	527	3,656
Taber	80	80	40	40	40	40	40	40	40	40	40	40	800
Group 5:													
Castor	505	581	550	664	372	978	875	41	860	958	1,714	5,518	240
Sheerness													41
Tofield													13,575
Total	1,232	1,644	1,131	880	617	1,102	1,042	250	944	1,121	1,878	9,463	21,304

**NUT COAL**

[illegible]

## SLACK COAL

	Group 4:	Group 5:	Total
Brooks	868	284	1152
Carbon	165	833	998
Drumheller	24,878	24,177	49,055
Taber	467	328	795
Group 5:			
Carmorse	198		198
Castor	473	210	683
Redcliff	89	91	180
Sheerness	330	376	706
Tofield	416	234	650
Total	27,884	26,533	54,417

THE MINES BRANCH

Total amount of Bituminous Coal disposed of by areas during each month for consumption in Manitoba:  
LUMP COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1:					44	48							92
Cascade .....													
Nordegg .....													
Group 2:	2,077	2,295	2,716	1,680	1,904	2,352	2,610	3,353	1,731	1,411	880	513	23,522
Crowsnest .....	91		43	263	98	94	88	240	177	174	43	125	1,436
Mountain Park .....													
Group 3:	3,437	3,276	3,589	2,787	3,015	2,838	1,919	1,736	2,903	2,290	2,458	2,774	33,022
Coalspur .....	2,015	2,142	2,746	1,900	2,990	2,295	1,577	2,070	1,526	1,858	1,622	1,776	24,517
Lethbridge .....	1,141	1,140	1,465	927	1,270	865	642	891	617	1,395	778	1,032	12,163
Saunders .....													
Total .....	8,761	8,853	10,559	7,557	9,321	8,492	6,836	8,290	6,954	7,128	5,781	6,220	94,752

MINE-RUN COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1:					44	94							1,184
Cascade .....	88	138	219	42				86		177	120	46	
Group 2:	566	538	574	240	253	958	541	250	1,697	1,632	2,745	1,761	11,755
Crowsnest .....	575	669	98	47	873	1,453	329	141	790	1,671	538	378	7,562
Mountain Park .....													
Group 3:	33	33		34							73		173
Saunders .....													
Total .....	1,262	1,578	891	363	1,170	2,505	1,000	477	2,487	3,480	3,476	2,185	20,674



Total amount of Sub-Bituminous Coal disposed of by areas during each month for consumption in Manitoba:  
LUMP COAL

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4:													
Big Valley .....	4,630	2,627				307	483	43	49	96	46	88	322
Brooks .....						92		2,434	1,733	1,790	1,942	2,305	18,251
Carbon .....	21,117	20,924	95		139	17,373	11,590	83	44			142	595
Drumheller .....			23,627	16,940	17,109	17,373	11,590	18,219	14,966	16,464	15,062	16,742	210,133
Edmonton .....	335	335	954	42	211	1,167	1,261	678	168	208	205	252	5,816
Pembina .....					100	48							148
Taber .....	5,435	3,914		1,009			1,016	507	1,261	3,147	2,430	2,395	21,114
Group 5:													
Camrose .....	43		140				38	43			43		307
Castor .....	1,361	1,123									80	40	2,604
Redcliff .....	200	210	214										624
Tofield .....	1,484	1,770	690						360	1,315	1,096	2,134	8,849
Total .....	34,605	30,903	25,720	17,991	17,559	18,987	14,388	22,007	18,581	23,020	20,904	24,098	268,763

MINE-RUN COAL

Group 4:													
Drumheller .....	42			166	42				43	43			336
Edmonton .....												653	653
Taber .....	39	245		131								2,803	3,218
Group 5:													
Tofield .....											116	86	202
Total .....	81	245		297	42				43	43	116	3,542	4,409

NUT COAL

[illegible]

## SLACK COAL

Group 4:	752	906	1,266	99	395	858	302	262	302	93	321	1,730
Brooks	493	697	1,266	164	395	858	302	592	537	363	42	5,939
Drumheller	1,880							202	305	281	533	4,568
Taber												
Total	3,125	1,603	1,266	263	395	858	302	1,056	1,144	737	896	12,237

**Total amount of Bituminous Coal disposed of by areas during each month for consumption in Ontario:**

**LUMP COAL**

	90	46	44	44	90
Group 1:					
Cascade					
Nordeg					
Group 2:					
Crowsnest					
Mountain Park					
Group 3:					
Coalspur					
Lethbridge					
Saunders					
Total	308	1724	1724	1724	13265

## MINE-RUN COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 2:													
Crownest .....					720	7535	6,315	8,161	2,635	1,944	1,960	1,703	720
Mountain Park .....				50	6,847								37,150
Group 3:													
Coalspur .....						88	48						136
Total .....				50	7,567	7,623	6,363	8,161	2,635	1,944	1,960	1,703	38,006

## NUT COAL

Group 1:													
Cascade .....	634	971	2,102	78		1,921	1,732	2,284	1,990	1,196	239	421	13,568
Group 2:													
Crownest .....								119					119
Mountain Park .....												44	44
Group 3:													
Coalspur .....	168	494	936	256	2,143	3,947	2,469	3,389	2,616	2,863	2,290	3,600	25,171
Lethbridge .....	129	42	193	136	41	47	43	83	42	45		43	844
Saunders .....			31	30	79	85	130	81		36		28	500
Total .....	931	1,507	3,262	500	2,263	6,000	4,374	5,956	4,648	4,140	2,529	4,136	40,246

## SLACK COAL

Group 2:													
Crownest .....					395	5,018	11,059	10,172	5,204	5,335	2,134	3,037	42,354
Mountain Park .....						7,437	6,645	3,709					17,791
Group 3:													
Coalspur .....			43										43
Total .....			43		395	12,455	17,704	13,881	5,204	5,335	2,134	3,037	60,188



**Total amount of Sub-Bituminous Coal disposed of by areas during each month for consumption in Ontario:**

**LUMP COAL**

[illegible]

**MINE-RUN COAL**

[illegible]

**NUT COAL**

[illegible]

SLACK COAL

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4: Brooks Drumheller Taber	115 786	60 795	106	186 63	217		374	199 633	532	826	356	138	374 4,949 63
Total	901	855	106	249	217		374	832	532	826	356	138	5,386

Total amount of Bituminous Coal disposed of by areas during each month for consumption in China:

Group 2: Crownsnest		141	15,531	4,722	9,594	7,877		....			....		37,865
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Total amount of Bituminous Coal disposed of by areas during each month for consumption in Ship's Bunkers:  
LUMP COAL

Group 2: Mountain Park								....				990	990
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MINE-RUN COAL

Group 2: Crownsnest		190						....				1,013	1,203
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SLACK COAL

Group 2: Crownsnest Mountain Park		71	831			6,459	2,719	9,231	266				902 18,675
Total		261	831			6,459	2,719	9,231	266			2,003	21,770

Total amount of Bituminous Coal disposed of by areas during each month for consumption in United States:

LUMP COAL													
Group 2: Crownsnest	737	450	429	200	332	162	275	534	956	1,867	827	2,091	8,860
Group 3: Coalspur	52	52	328	142	328	142	179	192	127	539	40	43	657
Lethbridge	1,311	1,705	686	850	647	97	179	192	127	539	598	749	7,680
Total	2,100	2,207	1,115	1,378	1,121	259	454	726	1,083	2,406	1,465	2,883	17,197
MINE-RUN COAL													
Group 2: Crownsnest	114	737	43	2,968	2,968			77	67	52	363	177	4,598
Mountain Park											417		417
Totals	114	737	43	2,968	2,968			77	67	52	780	177	5,015
NUT COAL													
Group 2: Crownsnest	1,961	1,819	5,653	6,502	3,067	1,448	2,221	1,688	787	2,618	4,840	2,393	34,806
Group 3: Coalspur	47	47	1,221	704	704			503	88	395	1,236	354	3,255
Lethbridge	748	886	480	1,139	899	533	448				683		7,156
Total	2,756	5,752	6,133	8,662	4,670	1,980	2,679	2,191	875	3,013	6,759	2,747	45,217
SLACK COAL													
Group 2: Crownsnest	4,728	2,298	1,145	3,202	3,711	5,875	2,654	4,549	3,167	5,164	3,431	7,003	46,927
Group 3: Coalspur				284	1,350	2,561	3,098	499	575	2,296		2,287	12,950
Total	4,728	2,298	1,145	3,486	5,061	8,436	5,752	5,048	3,742	7,460	3,431	9,290	59,877



Amount of Bituminous Coal used under Colliery Boilers by areas during each month:

[illegible]

Amount of Sub-Bituminous Coal used under Colliery Boilers by areas during each month:

Group 4:	137	116	96	88	113	82	121	131	125	138	111	1,387
Carbon .....	137	116	96	88	113	82	121	131	125	138	111	1,387
Drumheller .....	996	961	839	818	780	698	702	742	901	996	1,057	10,704
Edmonton .....	531	436	362	381	426	387	422	407	387	415	571	5,259
Pembina .....	346	316	202	267	319	291	291	319	311	457	420	3,921
Group 5:												
Camrose .....	20	20	15	15	15	20	20	20	20	20	20	225
Castor .....	42	32	10	15	10	20	30	20	20	40	20	320
Tofield .....	50	50	50	50	50	25	25	25	25	50	50	500
									12			12
Total .....	2,159	1,931	1,624	1,625	1,713	1,517	1,611	1,664	1,801	2,116	2,249	22,328

Amount of Bituminous Coal used by Colliery Railroads by areas during each month:

[illegible]

Amount of Sub-Bituminous Coal used by Colliery Railroads by areas during each month:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 5: Redcliff .....	32	38	19	.....	.....	.....	.....	.....	17	6	.....	.....	112

Amount of Bituminous Coal used making Briquettes:

Group 1: Cascade .....	8,143	8,255	9,406	5,248	8,022	7,658	7,781	8,372	6,644	6,627	6,691	5,999	88,846
Nordegg .....	14,817	14,829	13,665	14,824	16,784	13,134	17,052	13,881	10,356	15,526	12,410	12,999	170,277
Total .....	22,960	23,084	23,071	20,072	24,806	20,792	24,833	22,253	17,000	22,153	19,101	18,998	259,123

Amount of Bituminous Coal used making Coke:

Group 2: Crowsnest .....	4,251	4,659	5,910	5,511	5,849	5,377	5,392	5,253	5,081	5,749	4,714	7,132	64,878
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Amount of Bituminous Coal Put to Stock by areas during each month:

Group 1: Cascade .....	520	555	669	472	510	330	535	401	360	489	451	335	5,627
Nordegg .....	65	.....	250	57	145	230	.....	20	.....	390	8	260	1,425
Group 2: Crowsnest .....	1,188	.....	622	666	460	247	2,153	40	914	1,387	.....	1,451	9,128
Mountain Park .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Group 3: Coalspur .....	281	320	102	1,373	386	315	715	2,606	560	56	34	.....	6,748
Halcourt .....	.....	.....	.....	.....	.....	.....	.....	130	102	77	158	5	6
Lethbridge .....	.....	.....	.....	.....	115	114	126	.....	.....	.....	.....	108	930
Morley .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pekisko .....	.....	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
Pincher .....	45	.....	18	.....	.....	.....	.....	.....	.....	.....	.....	6	69
Total .....	2,099	875	1,670	2,568	1,616	1,236	3,529	3,197	1,936	2,400	651	2,165	23,942

Amount of Sub-Bituminous Coal Put to Stock by areas during each month:

Group 4:	30	17	18	2	3	18	33	56	5	100	220	77
Ardley	40	43	18	2	3	18	33	56	5	100	220	665
Big Valley	52	265	251	121	174	220	325	250	87	100	220	525
Brooks	200	251	60	25	174	220	325	250	87	100	220	1,826
Carbon	70	10	669	429	238	369	143	250	87	100	220	2,178
Drumheller	9	10	1									20
Edmonton	6											6
Pembina	8,024	1,830					1,141	1,057	3,844	1,655	143	17,551
Taber												6
Group 5:												
Castor										230	143	373
Redcliff										40	24	69
Westlock	5											
Total	8,660	2,445	747	472	364	561	1,642	1,613	3,936	2,025	387	23,090

Amount of Bituminous Coal Lifted from Stock by areas during each month:

Group 1:	520	555	669	472	510	330	535	401	360	489	451	5,885
Cascade	393	91	110	200	81	83	130	110	360	360	36	1,603
Nordegg	400	341	986	514	21	739	1,445	422	573	1,226	1,044	7,311
Group 2:												
Crowsnest	6	11	126	222	84	29	105	313	102	1,528	1,987	4,676
Coalspur						115	126	130	77	77	158	822
Lethbridge									67	67		67
Morley												
Total	799	963	1,777	1,405	777	1,474	2,341	1,376	1,035	3,747	3,678	20,164

Amount of Sub-Bituminous Coal Lifted from Stock by areas during each month:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 4:													
Carbon	245	1,604	789	20			773	143	250			984	4,808
Drumheller	184	81	618	536	26	90	290		19				1,825
Edmonton													19
Taber													
Pembina													
Group 5:													
Westlock										14			14
Total	429	1,685	1,407	556	26	90	1,063	143	269	14		984	6,666

Amount of Bituminous Coal Lifted from Waste by areas during each month:

Group 2:													
Crowsnest					370	2,033	2,422	2,991	1,546	441		767	10,570

Amount of Sub-Bituminous Coal Lifted from Waste by areas during each month:

Group 4:													
Drumheller			4							287	226	223	740

Amount of Bituminous Coal Put to Waste by areas during each month:

Group 1:													
Cascade	49	48	42	26	20	18	25	20	40	40	40	30	398
Group 2:													
Crowsnest	8,980	8,606	7,965	8,666	7,281	5,095	6,082	7,132	7,251	8,038	5,774	5,111	85,981
Group 3:													
Coalspur	3,053	2,297	2,266	2,471	2,074	2,266	1,762	2,022	2,025	1,942	1,723	1,695	25,596
Haicourt	2												2
Lethbridge	22	24	21	18	17	15	18	20	18	16	19	18	226
Pekisko													20
Pincher	15	10	6		5	5	5	4	8	4	4	7	73
Total	12,121	10,985	10,320	11,181	9,397	7,399	7,892	9,198	9,342	10,040	7,560	6,861	112,296



Amount of Sub-Bituminous Coal Put to Waste by areas during each month:

		1946		1945		1944		1943		1942		1941		1940	
		No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output
Group 4:															
Ardley	3,562	29	29	8	6	15	32	60	159	240	529	50	50	100	3,562
Brooks	85	90	43	36	36	50	62	84	69	73	75	348	348	1,540	1,540
Carbon	62	2,014	2,422	2,095	1,879	177	90	15	287	226	226	223	223	77	766
Champion	2,014	3	3	1,522	34	5	25	2,130	3,549	3,620	3,369	10	18	85	11,805
Drumheller	20	10,513	35	15	3	3,098	3	15	26	45	574	30	29	100	85
Edmonton	28	27	13	3	3	7	6	15	26	45	574	30	29	100	85
Pembina	165	176	24	15	10	7	6	15	26	45	574	30	29	100	85
Taber	10	620	298	73	4	4	3	3	25	177	556	410	410	284	2,824
Group 5:															
Camrose	28	27	13	3	3	7	6	15	26	45	574	30	29	100	85
Castor	165	176	24	15	10	7	6	15	26	45	574	30	29	100	85
Rochester	10	620	298	73	4	4	3	3	25	177	556	410	410	284	2,824
Sheerness	658	658	658	658	658	658	658	658	658	658	658	658	658	658	658
Yield	658	658	658	658	658	658	658	658	658	658	658	658	658	658	658
Westlock	658	658	658	658	658	658	658	658	658	658	658	658	658	658	658
Total	17,117	8,643	2,864	3,761	1,972	254	3,317	2,304	3,837	4,530	5,594	4,937	4,937	59,130	59,130

Output and Number of Mines Producing

Kind of Coal	Under 1,000 tons		1,000 to 5,000 tons		5,000 to 10,000 tons		10,000 to 50,000 tons		50,000 to 100,000 tons		100,000 to 150,000 tons		150,000 to 200,000 tons		200,000 to 300,000 tons		Over 300,000 tons		Total	
	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output	No.	Output
Bituminous	13	4,060	4	8,280	15	104,624	22	543,032	9	684,252	1	111,909	3	566,056	3	731,347	9	3,764,361	40	5,389,596
Sub-Bituminous	46	21,528	53	113,790	15	104,624	22	543,032	9	684,252	6	721,144	6	1,022,185	1	224,304	1	224,304	158	3,434,859
Total	59	25,588	57	122,070	15	104,624	29	746,615	9	684,252	7	833,053	9	1,588,241	4	955,651	9	3,764,361	198	8,824,455

## THE MINES BRANCH

Number of men employed in the BITUMINOUS FIELD as at December 31st, 1946:

Areas	UNDERGROUND												ABOVE GROUND										TOTAL		
	Officials	Hand Cutters	Machine Cutters & Helpers	Machine Loaders	Chute Loaders	Horse H'l'ge Employees	Mechanical H'l'ge Employees	Ventilation Employees	Road Makers	Timber Men	Pump Men	Other Employees	Total Underground	Adminis- tration	Foremen and Clerks	Screenmen and Loaders	Engine Men	Firemen	Machinists	Carpenters and Masons	Other Mechanics	Surface Haulage		All Other Employees	Total Above Ground
Group 1:	20	17	9	11	..	7	25	2	7	5	10	173	2	19	30	4	8	4	2	..	..	74	143	316	
Cascade .....	14	105	..	..	..	38	17	4	37	26	4	245	2	18	6	..	11	6	10	..	..	3	156	467	
Group 2:	120	667	197	27	138	42	129	17	32	145	4	95	1,613	32	73	174	22	29	22	26	69	23	146	616	2,229
Crowsnest .....	37	136	67	2	26	29	43	6	7	53	5	26	437	4	34	66	19	28	12	13	16	10	119	321	758
Mountain Park .....	22	49	38	151	18	19	6	4	10	31	6	2	356	11	47	100	22	28	9	9	15	33	94	368	724
Group 3:	1	3	..	..	..	..	..	..	..	..	..	..	4	..	3	3	..	..	..	..	..	2	2	10	14
Coalspur .....	32	4	43	243	..	48	33	5	14	18	3	47	490	3	25	36	10	9	9	4	17	6	45	164	654
Halcourt .....	1	..	..	..	..	..	..	..	..	..	..	..	4	..	1	..	..	..	..	..	..	..	..	1	2
Lethbridge .....	1	2	..	..	..	..	..	..	..	..	..	..	4	..	2	..	..	..	..	..	..	..	..	2	5
Morley .....	1	3	..	..	..	..	..	..	..	..	..	..	4	..	1	..	..	..	..	..	..	..	..	2	6
Pekisko .....	2	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	..	..	..	..	..	..	..	2	5
Pincher .....	7	..	10	55	..	4	8	..	2	3	..	4	93	2	9	14	5	2	1	1	1	2	2	39	132
Saunders .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	6	8	8	
No Area .....	257	1,046	364	489	182	187	262	38	109	281	22	185	3,422	56	234	429	83	115	63	65	128	79	644	1,896	5,318
Total .....	257	1,046	364	489	182	187	262	38	109	281	22	185	3,422	56	234	429	83	115	63	65	128	79	644	1,896	5,318



## THE MINES BRANCH

Men employed above and below ground in the BITUMINOUS FIELD by areas during each month:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Monthly Average
Group 1:													
Cascade .....	311	314	315	317	326	327	322	319	309	317	315	316	317
Nordegg .....	449	473	487	482	477	485	482	457	429	465	476	467	469
Group 2:													
Growsnest .....	2,235	2,275	2,293	2,239	2,272	2,260	2,248	2,206	2,127	2,182	2,202	2,229	2,231
Mountain Park .....	766	757	746	735	746	746	754	730	703	713	756	758	743
Group 3:													
Coalspur .....	713	720	712	718	732	746	713	677	656	673	671	724	705
Halcourt .....	6	3	1	1	1	1	1	1	1	1	11	14	5
Lethbridge .....	692	684	646	578	536	538	525	528	542	552	607	654	590
Morley .....	4	5	5	3	3	6	3	3	3	3	3	5	4
Pekisko .....	7	7	7	5	6	5	6	6	5	5	7	6	6
Pincher .....	3	3	3	3	3	4	4	4	4	4	4	5	4
Saunders .....	127	128	123	115	117	120	117	116	109	114	125	132	120
No Area .....			9							4	4	8	7
Total .....	5,313	5,369	5,347	5,192	5,215	5,238	5,175	5,047	4,888	5,041	5,184	5,318	5,201

Men employed above and below ground in the SUB-BITUMINOUS FIELD by areas during each month:

Group 4:		20	11	5	1	4	5	13	12	16	22	24	14
Ardley	29	22	19	16	16	11	11	10	22	25	34	34	21
Big Valley	28	73	7	5	10	23	35	45	49	49	53	52	42
Brooks	99	115	103	72	70	79	81	81	104	104	101	138	98
Carbon	122	114	11	9	9	11	10	10	11	13	13	26	13
Champion	14	2,310	2,164	2,079	2,014	1,972	2,000	2,033	2,006	2,065	2,198	2,225	2,116
Drumheller	2,273	653	587	447	406	430	473	497	542	654	731	815	575
Edmonton	682	63	57	30	28	32	24	32	34	26	38	46	40
Gleichen	68	6	3	2	2	4	4	4	5	5	10	5	5
Milk River	7	87	66	61	58	59	76	73	99	93	101	116	82
Pembina	91	105	14	74	10	13	57	62	64	58	97	94	66
Taber	139	3	2	2	2	2	2	2	2	2	4	5	3
Wetaskiwin	4	...	...	...	...	...	...	...	...	...	3	1	2
Whitecourt	...	...	...	...	...	...	...	...	...	...	...	...	...
Group 5:		89	73	55	51	59	88	99	74	92	126	121	85
Camrose	98	136	81	33	24	31	41	68	79	82	135	154	86
Castor	165	3	1	...	...	...	...	...	...	2	...	2	2
Pakowki	1	21	21	4	7	11	14	15	17	19	20	21	16
Redcliff	25	9	7	3	3	3	3	3	5	8	13	10	7
Rochester	14	36	26	20	18	16	17	26	23	28	50	38	28
Sheerness	37	94	63	51	47	44	46	51	63	82	117	117	73
Torfield	122	...	...	...	...	...	...	...	...	4	7	6	6
Westlock	8	...	...	...	...	...	...	...	...	...	...	...	...
Total	4,006	3,859	3,316	2,968	2,774	2,803	2,986	3,134	3,211	3,427	3,873	4,050	3,382

Men employed above and below ground in the BITUMINOUS and SUB-BITUMINOUS FIELDS by areas during each month:

Bituminous		5,369	5,347	5,192	5,215	5,238	5,175	5,047	4,888	5,041	5,184	5,318	5,201
Sub-Bituminous		4,006	3,316	2,968	2,774	2,803	2,986	3,134	3,211	3,427	3,873	4,050	3,382
Total	9,319	9,228	8,663	8,160	7,989	8,041	8,161	8,181	8,099	8,468	9,057	9,368	8,583

## THE MINES BRANCH

## PER CAPITA PRODUCTION OF MINES IN THE PROVINCE

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed under-ground	Tons of coal mined per man employed under-ground
1906	1,385,000	2,800	494	2,000	692
1907	1,834,745	3,600	509	2,700	679
1908	1,845,000	3,780	488	2,681	686
1909	2,174,329	5,207	417	3,893	566
1910	3,036,757	5,818	504	4,090	742
1911	1,694,564	6,689	253	4,517	375
1912	3,446,349	6,661	517	4,861	708
1913	4,306,346	8,068	533	5,837	737
1914	3,821,739	8,170	467	6,052	631
1915	3,434,891	6,445	532	4,493	764
1916	4,648,604	7,570	614	5,536	839
1917	4,863,414	8,310	595	6,047	804
1918	6,148,620	8,818	697	6,141	1,001
1919	5,022,412	7,573	663	5,150	958
1920	6,908,923	9,688	712	6,551	1,055
1921	5,937,195	10,018	592	7,203	824
1922	5,976,432	8,757	683	6,154	971
1923	6,866,923	9,927	687	7,249	893
1924	5,202,713	7,317	711	5,299	982
1925	5,883,394	8,774	670	6,498	834
1926	6,508,908	8,763	743	6,569	991
1927	6,936,780	9,016	768	6,681	970
1928	7,334,179	9,496	772	6,625	1,107
1929	7,147,250	9,572	747	7,115	1,004
1930	5,755,911	8,889	648	6,607	871
1931	4,563,309	8,070	577	5,969	701
1932	4,867,984	7,837	621	5,772	844
1933	4,714,784	8,042	586	5,937	794
1934	4,748,848	7,863	604	5,809	744
1935	5,462,973	7,800	700	5,644	969
1936	5,696,375	8,110	702	5,940	959
1937	5,551,682	7,836	708	5,806	956
1938	5,230,025	7,411	706	5,427	965
1939	5,518,105	7,456	740	5,517	1,000
1940	6,205,088	7,416	836	5,526	1,122
1941	6,970,064	7,714	903	5,652	1,233
1942	7,754,279	8,040	964	5,865	1,322
1943	7,677,982	8,636	889	6,197	1,160
1944	7,427,433	8,375	887	5,867	1,135
1945	7,801,248	8,309	939	5,752	1,298
1946	8,824,455	8,583	1,028	5,897	1,187

## PER CAPITA PRODUCTION OF MINES IN THE DOMESTIC COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed under-ground	Tons of coal mined per man employed under-ground
1910	878,011	2,307	380	1,676	524
1911	964,700	3,548	271	2,488	391
1912	1,341,389	2,980	450	2,283	587
1913	1,763,225	4,017	438	2,929	601
1914	1,697,401	4,219	402	3,190	532
1915	1,682,922	3,181	529	2,210	761
1916	2,172,801	4,132	525	3,137	692
1917	2,537,829	4,701	539	3,489	727
1918	3,035,061	4,896	619	3,420	887
1919	2,611,009	4,226	617	2,953	884
1920	3,359,308	5,173	647	3,723	902
1921	2,943,141	5,601	525	4,256	691
1922	3,086,669	4,981	620	3,752	823
1923	3,161,741	4,969	636	3,765	812
1924	3,096,660	4,543	681	3,447	898
1925	3,156,359	4,874	647	3,750	808
1926	3,160,029	4,798	658	3,713	816
1927	3,357,171	4,663	720	3,603	891
1928	3,378,200	4,810	702	3,700	873
1929	3,385,749	4,944	685	3,813	880
1930	2,874,090	4,822	596	3,756	765
1931	2,245,563	4,400	510	3,419	628
1932	2,574,785	4,548	566	3,539	728
1933	2,434,047	4,480	543	3,487	698
1934	2,295,566	4,289	535	3,370	644
1935—Stp. pit	130,084	96	1,355		
B. Ground	2,517,828	3,927	658	3,059	823
1936—Stp. pit	80,111	107	749		
B. Ground	2,761,120	4,112	671	3,243	851
1937—Stp. pit	80,116	79	1,014		
B. Ground	2,551,034	3,148	810	3,162	832
1938—Stp. pit	72,829	74	945		
B. Ground	2,380,434	3,573	667	2,846	801*
1939—Stp. pit	76,394	73	1,048		
B. Ground	2,372,805	3,636	653	2,900	813*
1940—Stp. pit	74,021	71	1,042		
B. Ground	2,463,184	3,556	692	2,844	866*
1941—Stp. pit	88,142	63	1,399		
B. Ground	2,625,112	3,427	766	2,745	956*
1942—Stp. pit	119,615	67	1,785		
B. Ground	3,093,496	3,485	888	2,777	1,114*
1943—Stp. pit	137,307	78	1,760		
B. Ground	3,278,730	4,016	816	3,133	1,046*
1944—Stp. pit	366,862	263	1,395		
B. Ground	2,779,939	3,565	882	2,826	984*

\*See note over page.

NOTE: Alberta Coals have been re-classified and Domestic Coal is now included in the new headings "Bituminous" and "Sub-Bituminous".

## THE MINES BRANCH

## PER CAPITA PRODUCTION OF MINES IN THE SUB-BITUMINOUS COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed under- ground	Tons of coal mined per man employed under- ground
1922—Stp. pit .....	367,514	217	1,692	.....	.....
B. Ground .....	179,550	403	445	277	648
1923—Stp. pit .....	288,467	190	1,513	.....	.....
B. Ground .....	174,994	354	494	260	673
1924—Stp. pit .....	369,724	211	1,782	.....	.....
B. Ground .....	222,222	393	565	278	799
1925—Stp. pit .....	335,993	162	2,074	.....	.....
B. Ground .....	245,842	461	533	326	754
1926—Stp. pit .....	258,964	147	1,761	.....	.....
B. Ground .....	231,407	443	545	305	758
1927—Stp. pit .....	304,584	194	1,583	.....	.....
B. Ground .....	290,606	478	608	321	905
1928—Stp. pit .....	394,682	179	2,205	.....	.....
B. Ground .....	345,810	643	536	457	756
1929—Stp. pit .....	319,764	163	1,962	.....	.....
B. Ground .....	348,344	585	595	402	866
1930—Stp. pit .....	304,144	157	1,937	.....	.....
B. Ground .....	299,187	569	526	390	767
1931—Stp. pit .....	280,251	161	1,803	.....	.....
B. Ground .....	191,138	486	393	336	569
1932—Stp. pit .....	348,266	177	1,862	.....	.....
B. Ground .....	211,213	491	430	341	619
1933—Stp. pit .....	309,365	170	1,820	.....	.....
B. Ground .....	244,776	516	474	370	661
1934—Stp. pit .....	302,054	158	1,912	.....	.....
B. Ground .....	235,488	482	489	326	722
1935—Stp. pit .....	287,970	180	1,600	.....	.....
B. Ground .....	278,466	501	830	337	826
1936—Stp. pit .....	263,899	175	1,508	.....	.....
B. Ground .....	302,587	532	569	360	841
1937—Stp. pit .....	229,747	149	1,542	.....	.....
B. Ground .....	276,782	504	549	348	795
1938—Stp. pit .....	227,317	148	1,536	.....	.....
B. Ground .....	261,593	633	772	327	800*
1939—Stp. pit .....	246,459	142	1,735	.....	.....
B. Ground .....	265,646	494	538	320	830*
1940—Stp. pit .....	318,425	241	1,321	.....	.....
B. Ground .....	280,261	393	713	328	854*
1941—Stp. pit .....	320,801	272	1,179	.....	.....
B. Ground .....	264,652	384	689	248	1,069*
1942—Stp. pit .....	332,748	191	1,742	.....	.....
B. Ground .....	400,799	521	769	342	1,172*
1943—Stp. pit .....	351,890	360	967	.....	.....
B. Ground .....	440,062	442	996	399	1,102*
1944—Stp. pit .....	280,420	161	1,742	.....	.....
B. Ground .....	449,007	589	973	386	1,163*
1945—Stp. pit .....	833,129	330	2,525	.....	.....
B. Ground .....	2,367,356	2,915	812	2,379	991*
1946—Stp. pit .....	831,505	316	2,631	.....	.....
B. Ground .....	2,603,354	3,066	849	2,513	1,036

\*See Note.



## PER CAPITA PRODUCTION OF MINES IN THE BITUMINOUS COAL FIELD

Year	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Average No. of men employed underground	Tons of coal mined per man employed underground
1910	1,896,961	2,981	636	2,076	914
1911	649,745	2,645	246	1,820	357
1912	1,926,371	3,243	594	2,353	818
1913	2,374,401	3,562	666	2,645	897
1914	1,953,367	3,529	553	2,632	742
1915	1,626,237	2,921	557	2,103	773
1916	2,335,259	3,142	743	2,258	1,034
1917	2,206,868	3,335	661	2,429	909
1918	2,982,334	3,686	820	2,597	1,109
1919	2,325,787	3,118	745	2,100	1,108
1920	3,410,021	4,228	809	2,711	1,202
1921	2,897,380	4,133	701	2,820	1,026
1922	2,214,273	3,034	729	2,084	1,062
1923	3,241,614	4,345	746	3,215	1,008
1924	1,515,107	2,171	698	1,574	966
1925	2,145,200	3,277	654	2,422	885
1926	2,858,508	3,375	847	2,550	1,121
1927	2,984,419	3,682	810	2,757	1,082
1928	3,215,481	3,862	832	2,468	1,302
1929	3,093,393	3,880	797	2,898	1,077
1930	2,278,490	3,341	682	2,461	926
1931	1,846,357	3,023	611	2,214	834
1932	1,733,720	2,621	660	1,892	916
1933	1,726,596	2,876	600	2,080	830
1934	1,915,740	2,934	653	2,113	907
1935	2,248,625	3,096	726	2,248	1,000
1936	2,288,658	3,184	719	2,337	979
1937	2,414,003	3,156	765	2,295	1,052
1938	2,287,840	3,131	731	2,254	1,015
1939	2,556,801	3,111	822	2,297	1,113
1940	3,069,197	3,155	972	2,354	1,303
1941	3,671,357	3,568	1,029	2,659	1,381
1942	3,807,619	3,766	1,008	2,746	1,387
1943	3,469,993	3,740	927	2,665	1,302
1944—Stp. pit	119,092	35	3,403		
B. Ground	3,432,113	3,762	935	2,655	1,293
1945—Stp. pit	491,736	209	2,364		
B. Ground	4,109,027	4,825	852	3,373	1,218
1946—Stp. pit	991,335	332	2,986		
B. Ground	4,398,261	4,869	903	3,384	1,300

## PER CAPITA PRODUCTION OF MINES IN THE ANTHRACITE COAL FIELD

1910	261,785	530	493	338	774
1911	80,119	500	160	209	383
1912	178,589	438	407	225	793
1913	168,720	489	345	263	641
1914	170,971	422	405	230	743
1915	125,732	343	366	180	698
1916	140,544	296	474	141	996
1917	118,717	284	418	129	920
1918	131,225	286	458	124	1,058
1919	85,616	229	374	95	901
1920	130,594	287	455	117	1,116
1921	96,674	284	341	127	761
1922	40,417	112	361	41	986
1923	107	69	1	9	12

NOTE.—The table showing the number of men employed in the Anthracite Coal Field, includes employees at the briquetting plant. There has been no anthracite coal produced since 1923.

\*Calculating the total per capita production for men employed underground, the tonnage mined from stripping pits was deducted and only the tonnage produced from mines was used.

It will also be noted that the tonnage used in the above and following tables does not include tonnage extracted under permit.

NOTE.—Previous to 1944 there was no coal mined in the Bituminous Field by strip-ping methods.

## THE MINES BRANCH

PER CAPITA PRODUCTION OF MINES BY AREAS:  
BITUMINOUS COAL FIELD

Areas	Strip and Underground Mining			Strip Mining			Underground Mining		
	Gross tons of coal mined	Total average No. of men employed	Tons of coal mined per man employed	Gross tons of coal mined	Average No. of men employed	Tons of coal mined per man employed	Gross tons of coal mined	Average No. of men employed	Tons of coal mined per man above and below
Group 1:									
Cascade .....	313,608	317	989	.....	.....	.....	313,608	317	989
Nordegg .....	333,368	469	711	13,888	34	408	319,480	435	734
Group 2:									
Crowsnest .....	2,256,741	2,231	1,012	158,835	31	5,124	2,097,906	2,200	954
Mountain Park .....	1,109,465	743	1,493	444,441	76	5,848	665,024	667	997
Group 3:									
Coalspur .....	832,987	705	1,182	372,768	179	2,083	460,219	526	875
Halcourt .....	1,662	5	332	976	4	244	686	1	686
Lethbridge .....	469,618	590	796	.....	.....	.....	469,618	590	796
Morley .....	1,238	4	309	.....	.....	.....	1,238	4	309
Pekisko .....	1,885	6	314	37	1	37	1,848	5	369
Pincher .....	488	4	122	.....	.....	.....	488	4	122
Saunders .....	68,146	120	568	.....	.....	.....	68,146	120	568
No Area .....	390	7	56	390	7	56	.....	.....	.....
Total .....	5,389,596	5,201	1,036	991,335	332	2,986	4,398,261	4,869	903

## SUB-BITUMINOUS COAL FIELD

Group 4:		Group 5:		Group 6:		Group 7:		Group 8:		Group 9:		Group 10:		Group 11:		Group 12:		Group 13:		Group 14:		Group 15:		Group 16:		Group 17:		Group 18:		Group 19:		Group 20:		Group 21:		Group 22:		Group 23:		Group 24:		Group 25:		Group 26:		Group 27:		Group 28:		Group 29:		Group 30:		Group 31:		Group 32:		Group 33:		Group 34:		Group 35:		Group 36:		Group 37:		Group 38:		Group 39:		Group 40:		Group 41:		Group 42:		Group 43:		Group 44:		Group 45:		Group 46:		Group 47:		Group 48:		Group 49:		Group 50:		Group 51:		Group 52:		Group 53:		Group 54:		Group 55:		Group 56:		Group 57:		Group 58:		Group 59:		Group 60:		Group 61:		Group 62:		Group 63:		Group 64:		Group 65:		Group 66:		Group 67:		Group 68:		Group 69:		Group 70:		Group 71:		Group 72:		Group 73:		Group 74:		Group 75:		Group 76:		Group 77:		Group 78:		Group 79:		Group 80:		Group 81:		Group 82:		Group 83:		Group 84:		Group 85:		Group 86:		Group 87:		Group 88:		Group 89:		Group 90:		Group 91:		Group 92:		Group 93:		Group 94:		Group 95:		Group 96:		Group 97:		Group 98:		Group 99:		Group 100:		Group 101:		Group 102:		Group 103:		Group 104:		Group 105:		Group 106:		Group 107:		Group 108:		Group 109:		Group 110:		Group 111:		Group 112:		Group 113:		Group 114:		Group 115:		Group 116:		Group 117:		Group 118:		Group 119:		Group 120:		Group 121:		Group 122:		Group 123:		Group 124:		Group 125:		Group 126:		Group 127:		Group 128:		Group 129:		Group 130:		Group 131:		Group 132:		Group 133:		Group 134:		Group 135:		Group 136:		Group 137:		Group 138:		Group 139:		Group 140:		Group 141:		Group 142:		Group 143:		Group 144:		Group 145:		Group 146:		Group 147:		Group 148:		Group 149:		Group 150:		Group 151:		Group 152:		Group 153:		Group 154:		Group 155:		Group 156:		Group 157:		Group 158:		Group 159:		Group 160:		Group 161:		Group 162:		Group 163:		Group 164:		Group 165:		Group 166:		Group 167:		Group 168:		Group 169:		Group 170:		Group 171:		Group 172:		Group 173:		Group 174:		Group 175:		Group 176:		Group 177:		Group 178:		Group 179:		Group 180:		Group 181:		Group 182:		Group 183:		Group 184:		Group 185:		Group 186:		Group 187:		Group 188:		Group 189:		Group 190:		Group 191:		Group 192:		Group 193:		Group 194:		Group 195:		Group 196:		Group 197:		Group 198:		Group 199:		Group 200:		Group 201:		Group 202:		Group 203:		Group 204:		Group 205:		Group 206:		Group 207:		Group 208:		Group 209:		Group 210:		Group 211:		Group 212:		Group 213:		Group 214:		Group 215:		Group 216:		Group 217:		Group 218:		Group 219:		Group 220:		Group 221:		Group 222:		Group 223:		Group 224:		Group 225:		Group 226:		Group 227:		Group 228:		Group 229:		Group 230:		Group 231:		Group 232:		Group 233:		Group 234:		Group 235:		Group 236:		Group 237:		Group 238:		Group 239:		Group 240:		Group 241:		Group 242:		Group 243:		Group 244:		Group 245:		Group 246:		Group 247:		Group 248:		Group 249:		Group 250:		Group 251:		Group 252:		Group 253:		Group 254:		Group 255:		Group 256:		Group 257:		Group 258:		Group 259:		Group 260:		Group 261:		Group 262:		Group 263:		Group 264:		Group 265:		Group 266:		Group 267:		Group 268:		Group 269:		Group 270:		Group 271:		Group 272:		Group 273:		Group 274:		Group 275:		Group 276:		Group 277:		Group 278:		Group 279:		Group 280:		Group 281:		Group 282:		Group 283:		Group 284:		Group 285:		Group 286:		Group 287:		Group 288:		Group 289:		Group 290:		Group 291:		Group 292:		Group 293:		Group 294:		Group 295:		Group 296:		Group 297:		Group 298:		Group 299:		Group 300:		Group 301:		Group 302:		Group 303:		Group 304:		Group 305:		Group 306:		Group 307:		Group 308:		Group 309:		Group 310:		Group 311:		Group 312:		Group 313:		Group 314:		Group 315:		Group 316:		Group 317:		Group 318:		Group 319:		Group 320:		Group 321:		Group 322:		Group 323:		Group 324:		Group 325:		Group 326:		Group 327:		Group 328:		Group 329:		Group 330:		Group 331:		Group 332:		Group 333:		Group 334:		Group 335:		Group 336:		Group 337:		Group 338:		Group 339:		Group 340:		Group 341:		Group 342:		Group 343:		Group 344:		Group 345:		Group 346:		Group 347:		Group 348:		Group 349:		Group 350:		Group 351:		Group 352:		Group 353:		Group 354:		Group 355:		Group 356:		Group 357:		Group 358:		Group 359:		Group 360:		Group 361:		Group 362:		Group 363:		Group 364:		Group 365:		Group 366:		Group 367:		Group 368:		Group 369:		Group 370:		Group 371:		Group 372:		Group 373:		Group 374:		Group 375:		Group 376:		Group 377:		Group 378:		Group 379:		Group 380:		Group 381:		Group 382:		Group 383:		Group 384:		Group 385:		Group 386:		Group 387:		Group 388:		Group 389:		Group 390:		Group 391:		Group 392:		Group 393:		Group 394:		Group 395:		Group 396:		Group 397:		Group 398:		Group 399:		Group 400:		Group 401:		Group 402:		Group 403:		Group 404:		Group 405:		Group 406:		Group 407:		Group 408:		Group 409:		Group 410:		Group 411:		Group 412:		Group 413:		Group 414:		Group 415:		Group 416:		Group 417:		Group 418:		Group 419:		Group 420:		Group 421:		Group 422:		Group 423:		Group 424:		Group 425:		Group 426:		Group 427:		Group 428:		Group 429:		Group 430:		Group 431:		Group 432:		Group 433:		Group 434:		Group 435:		Group 436:		Group 437:		Group 438:		Group 439:		Group 440:		Group 441:		Group 442:		Group 443:		Group 444:		Group 445:		Group 446:		Group 447:		Group 448:		Group 449:		Group 450:		Group 451:		Group 452:		Group 453:		Group 454:		Group 455:		Group 456:		Group 457:		Group 458:		Group 459:		Group 460:		Group 461:		Group 462:		Group 463:		Group 464:		Group 465:		Group 466:		Group 467:		Group 468:		Group 469:		Group 470:		Group 471:		Group 472:		Group 473:		Group 474:		Group 475:		Group 476:		Group 477:		Group 478:		Group 479:		Group 480:		Group 481:		Group 482:		Group 483:		Group 484:		Group 485:		Group 486:		Group 487:		Group 488:		Group 489:		Group 490:		Group 491:		Group 492:		Group 493:		Group 494:		Group 495:		Group 496:		Group 497:		Group 498:		Group 499:		Group 500:		Group 501:		Group 502:		Group 503:		Group 504:		Group 505:		Group 506:		Group 507:		Group 508:		Group 509:		Group 510:		Group 511:		Group 512:		Group 513:		Group 514:		Group 515:		Group 516:		Group 517:		Group 518:		Group 519:		Group 520:		Group 521:		Group 522:		Group 523:		Group 524:		Group 525:		Group 526:		Group 527:		Group 528:		Group 529:		Group 530:		Group 531:		Group 532:		Group 533:		Group 534:		Group 535:		Group 536:		Group 537:		Group 538:		Group 539:		Group 540:		Group 541:		Group 542:		Group 543:		Group 544:		Group 545:		Group 546:		Group 547:		Group 548:		Group 549:		Group 550:		Group 551:		Group 552:		Group 553:		Group 554:		Group 555:		Group 556:		Group 557:		Group 558:		Group 559:		Group 560:		Group 561:		Group 562:		Group 563:		Group 564:		Group 565:		Group 566:		Group 567:		Group 568:		Group 569:		Group 570:		Group 571:		Group 572:		Group 573:		Group 574:		Group 575:		Group 576:		Group 577:		Group 578:		Group 579:		Group 580:		Group 581:		Group 582:		Group 583:		Group 584:		Group 585:		Group 586:		Group 587:		Group 588:		Group 589:		Group 590:		Group 591:		Group 592:		Group 593:		Group 594:		Group 595:		Group 596:		Group 597:		Group 598:		Group 599:		Group 600:		Group 601:		Group 602:		Group 603:		Group 604:		Group 605:		Group 606:		Group 607:		Group 608:		Group 609:		Group 610:		Group 611:		Group 612:		Group 613:		Group 614:		Group 615:		Group 616:		Group 617:		Group 618:		Group 619:		Group 620:		Group 621:		Group 622:		Group 623:		Group 624:		Group 625:		Group 626:		Group 627:		Group 628:		Group 629:		Group 630:		Group 631:		Group 632:		Group 633:		Group 634:		Group 635:		Group 636:		Group 637:		Group 638:		Group 639:		Group 640:		Group 641:		Group 642:		Group 643:		Group 644:		Group 645:		Group 646:		Group 647:		Group 648:		Group 649:		Group 650:		Group 651:		Group 652:		Group 653:		Group 654:		Group 655:		Group 656:		Group 657:		Group 658:		Group 659:		Group 660:		Group 661:		Group 662:		Group 663:		Group 664:		Group 665:		Group 666:		Group 667:		Group 668:		Group 669:		Group 670:		Group 671:		Group 672:		Group 673:		Group 674:		Group 675:		Group 676:		Group 677:		Group 678:		Group 679:		Group 680:		Group 681:		Group 682:		Group 683:		Group 684:		Group 685:		Group 686:		Group 687:		Group 688:		Group 689:		Group 690:		Group 691:		Group 692:		Group 693:		Group 694:		Group 695:		Group 696:		Group 697:		Group 698:		Group 699:		Group 700:		Group 701:		Group 702:		Group 703:		Group 704:		Group 705:		Group 706:		Group 707:		Group 708:		Group 709:		Group 710:		Group 711:		Group 712:		Group 713:		Group 714:		Group 715:		Group 716:		Group 717:		Group 718:		Group 719:		Group 720:		Group 721:		Group 722:		Group 723:		Group 724:		Group 725:		Group 726:		Group 727:		Group 728:		Group 729:		Group 730:		Group 731:		Group 732:		Group 733:		Group 734:		Group 735:		Group 736:		Group 737:		Group 738:		Group 739:		Group 740:		Group 741:		Group 742:		Group 743:		Group 744:		Group 745:		Group 746:		Group 747:		Group 748:		Group 749:		Group 750:		Group 751:		Group 752:		Group 753:		Group 754:		Group 755:		Group 756:		Group 757:		Group 758:		Group 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## SUMMARY

Bituminous .....	5,389,596	5,201	1,036	991,335	332	2,986	4,398,261	4,869	903
Sub-Bituminous .....	3,434,859	3,382	1,016	831,505	316	2,631	2,603,354	3,066	849
<b>Total .....</b>	<b>8,824,455</b>	<b>8,583</b>	<b>1,028</b>	<b>1,822,840</b>	<b>648</b>	<b>2,813</b>	<b>7,001,615</b>	<b>7,935</b>	<b>882</b>

## THE MINES BRANCH

Number of days on which Coal was drawn in the BITUMINOUS FIELD by areas during each month:

Areas	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Group 1:													
Cascade	25.5	24.0	25.5	20.0	25.0	24.5	25.5	26.5	24.5	24.5	23.5	22.5	291.5
Nordeg	23.0	24.0	25.0	25.0	25.0	23.0	26.0	25.0	24.0	26.0	23.0	19.0	288.0
Group 2:													
Crownest	23.25	22.25	23.0	21.75	21.0	20.71	22.62	23.12	21.0	21.37	16.0	16.35	252.32
Mountain Park	24.3	22.0	23.0	24.66	24.33	19.25	26.0	25.66	24.0	23.66	22.0	22.66	291.52
Group 3:													
Coalspur	22.6	23.16	24.5	22.66	22.66	22.33	22.33	23.83	23.5	23.2	19.2	20.6	270.57
Hatcourt	24.0	19.0	11.0	16.0	16.0	16.0	17.0	22.0	24.0	14.66	11.0	15.37	174.23
Lethbridge	21.28	22.5	23.2	20.6	20.8	21.8	21.0	24.8	21.6	20.8	19.6	19.0	256.98
Porley	18.0	17.0	19.0	11.0	10.0	17.0	11.0	10.0	9.0	10.0	17.0	21.0	160.0
Pekisko	11.0	13.5	12.0	20.0	20.0	20.0	21.0	22.0	16.0	20.0	7.0	8.5	191.0
Fincher	20.0	12.0	8.0	20.0	10.0	18.0	15.0	14.0	24.0	15.0	19.5	15.0	170.50
Saunders	25.0	22.0	26.0	24.0	25.0	23.5	26.0	26.0	22.0	24.0	20.0	18.0	281.50
No Area			10.5							2.0	17.0	21.0	50.50
Total	21.63	20.13	19.22	21.07	21.53	20.55	21.22	22.08	21.24	18.76	17.9	18.26	243.59

Number of days on which Coal was drawn in the SUB-BITUMINOUS FIELD by areas during each month:

Group 4:		14.8	14.0	8.0	12.5	2.0	20.0	9.0	11.6	13.75	19.14	20.87	21.0	166.66
Ardley		22.6	16.33	11.0	22.0	4.0	6.0	20.0	15.5	21.0	25.5	23.0	19.5	206.43
Big Valley		22.0	10.0	12.0	21.0	10.0	22.0	21.0	24.0	17.0	19.0	22.0	18.0	218.0
Brooks		20.3	24.0	12.27	9.55	12.87	14.36	14.63	16.54	19.58	19.0	21.81	17.66	202.57
Carbon		24.5	21.5	13.0	18.0	20.0	21.5	22.0	25.5	24.0	25.5	22.5	18.0	256.0
Champion		24.13	21.34	24.9	20.04	22.0	21.73	15.39	23.47	20.31	19.59	18.08	18.04	249.02
Drumheller		22.34	21.03	16.8	17.0	16.23	16.37	19.6	21.75	21.04	21.66	20.03	20.03	238.12
Edmonton		24.2	19.8	16.6	14.0	9.6	11.8	17.75	19.4	18.2	19.0	18.2	17.0	205.55
Gleichen		13.5	14.5	9.0	5.0	11.0	14.0	11.0	10.0	19.0	20.0	15.0	9.0	151.0
Milk River		20.6	13.8	16.0	10.5	15.0	17.0	19.5	24.0	13.8	20.25	20.75	19.6	210.80
Pembina		20.75	16.25	14.66	13.0	15.33	15.0	16.33	13.5	19.75	22.33	19.8	18.5	205.20
Taber		22.0	20.0	15.0	4.0			5.0	6.0	10.0	23.0	7.0	22.5	146.50
Wetaskiwin													8.0	15.0
Whitecourt														
Group 5:		21.5	16.83	14.66	9.75	16.33	24.0	17.66	27.0	24.0	19.75	19.14	19.83	230.45
Camrose		20.12	17.18	7.61	8.8	9.63	9.84	12.5	15.37	16.0	20.05	20.88	19.37	177.35
Castor		13.0	18.5	11.0		8.0					13.5	10.0	10.0	74.0
Pakowki		16.0	18.0	9.0	6.0	6.0	25.0	24.0	25.0	22.0	26.0	26.0	16.0	219.0
Redcliff		25.5	24.0	12.0	3.0	1.5		1.0	1.0	9.0	24.0	25.5	25.0	151.50
Rochester		21.0	17.6	18.5	13.0	10.75	14.0	10.6	14.0	15.25	16.4	20.0	18.16	189.26
Sheerness		22.0	18.2	10.5	10.3	8.6	19.5	23.5	8.0	12.8	24.8	25.0	24.0	202.20
Tofield														
Westlock		11.0									12.0	25.0	21.0	69.0
Total		20.11	18.04	13.29	12.08	11.05	18.88	15.58	16.88	17.62	20.49	20.56	18.12	202.70
Number of days on which Coal was drawn each month:														
Bituminous		21.63	20.13	19.22	21.07	21.53	20.55	21.22	22.08	21.24	18.76	17.9	18.26	243.59
Sub-Bituminous		20.11	18.04	13.29	12.08	11.05	18.88	15.58	16.88	17.62	20.49	20.56	18.12	202.70
Total		20.87	19.08	16.25	16.57	16.29	19.72	18.4	19.48	19.43	19.62	19.23	18.19	223.14

## THE MINES BRANCH

Total number of shifts worked above and below ground by areas during each month for the six months ending June 30, 1946:

## BITUMINOUS FIELD

Areas	January		February		March		April		May		June		Total Jan. to June	
	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground
Group 1:														
Cascade .....	3,606	4,055	2,836	3,630	3,209	3,972	2,373	2,568	3,703	3,928	3,183	3,782	18,910	21,935
Nordeg .....	4,586	4,949	4,520	4,993	4,737	5,208	4,766	5,026	5,140	5,185	4,815	4,663	28,564	30,024
Group 2:														
Crowsnest .....	13,445	35,213	12,627	33,607	14,496	35,799	13,998	32,850	14,282	33,824	13,990	31,240	82,838	202,533
Mountain Park .....	6,043	11,964	5,738	1,0809	6,344	10,807	6,604	10,148	7,001	10,303	6,690	10,064	38,420	64,095
Group 3:														
Coalspur .....	9,365	8,106	8,739	7,768	11,700	5,865	8,479	7,083	8,679	6,846	8,769	7,287	55,731	42,955
Lehigh .....	81	62	43	43	11	11	11	11	11	11	16	16	81	132
Lethbridge .....	4,108	11,351	3,768	10,691	4,155	10,113	3,879	7,872	3,592	8,654	3,448	7,516	22,950	56,197
Morley .....	34	34	66	66	24	70	20	33	20	60	20	126	153	349
Pekisko .....	42	68	27	84	24	77	20	64	20	60	20	58	153	411
Pincher .....	24	48	22	44	12	24	10	18	10	18	18	18	86	144
Saunders .....	897	2,323	778	1,946	904	2,101	870	1,722	712	1,871	782	1,829	4,943	11,792
No Area .....	.....	.....	.....	.....	45	.....	.....	.....	.....	.....	.....	.....	45	.....
Total .....	42,197	78,193	39,055	73,681	45,626	74,047	40,989	67,366	43,139	70,681	41,715	66,599	252,721	430,567

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Total number of shifts worked above and below ground by areas during each month for the six months ending December 31, 1946:

## BITUMINOUS FIELD

Areas	July		August		September		October		November		December		Total July to Dec.		Total for year 1946	
	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground
Group 1:																
Cascade .....	3,494	4,115	3,346	3,971	3,090	3,658	3,060	3,665	2,862	3,249	2,661	3,055	18,513	21,713	37,423	43,648
Nordegg .....	4,893	4,823	4,806	4,764	3,993	4,140	5,127	4,067	4,251	3,924	4,344	3,869	27,414	25,587	55,978	55,611
Group 2:																
Crownsnest .....	14,561	33,568	14,629	33,331	13,213	29,266	13,755	31,634	11,561	24,417	11,990	24,486	79,709	176,702	162,547	379,235
Mountain Park .....	7,359	10,017	7,050	10,423	6,473	9,835	6,943	10,147	7,699	8,554	6,468	9,493	41,992	58,469	80,412	122,564
Group 3:																
Coalspur .....	8,817	5,773	9,556	6,278	8,159	6,087	8,694	6,198	9,134	5,624	8,840	5,726	53,200	35,686	108,931	78,641
Halcourt .....	.....	17	.....	22	.....	24	36	48	84	30	132	45	276	182	357	234
Lethbridge .....	3,256	6,490	3,473	8,322	3,343	8,247	3,412	8,071	3,300	8,421	3,347	8,997	20,121	48,548	43,081	104,745
Morley .....	.....	60	.....	50	.....	48	.....	30	.....	51	.....	63	.....	302	21	651
Pekisko .....	21	78	22	75	16	71	22	66	7	39	17	42	103	352	258	743
Pincher .....	15	15	16	28	24	24	15	15	39	39	50	50	159	171	245	315
Saunders .....	895	1,951	824	1,933	751	1,504	773	1,772	772	1,656	725	1,599	4,740	10,415	9,683	22,207
No Area .....	.....	.....	.....	.....	.....	.....	12	.....	67	.....	76	.....	155	.....	200	.....
Total	43,311	66,907	43,722	69,197	39,086	62,880	41,849	65,713	39,776	55,965	38,671	57,425	246,415	378,087	499,136	808,654

## THE MINES BRANCH

Total number of shifts worked above and below ground by areas during each month, for the six months ending June 30, 1946:

## SUB-BITUMINOUS FIELD

Areas	January		February		March		April		May		June		Total Jan. to June	
	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground
Group 4:														
Ardley .....	183	175	85	130	2	101	..	55	2	..	..	24	272	485
Big Valley .....	66	330	734	249	41	168	20	104	28	13	43	61	238	925
Brooks .....	2,430	40	734	..	193	..	105	..	102	..	289	..	3,853	..
Carbon .....	406	1,620	2,836	3,630	375	1,252	248	780	307	794	322	1,005	4,494	9,081
Champion .....	26	234	23	220	14	110	19	113	20	105	22	137	124	919
Drumheller .....	11,160	40,332	10,077	36,224	10,165	36,934	11,939	31,998	9,291	31,705	8,654	30,038	61,216	207,231
Edmonton .....	3,121	10,967	2,732	10,446	2,471	8,334	1,863	5,638	1,773	5,673	1,979	5,320	13,938	46,978
Gleichen .....	172	1,425	138	1,179	180	874	80	338	84	270	100	360	754	4,446
Milk River .....	37	24	30	30	..	21	..	6	..	22	..	31	67	134
Pembina .....	506	1,159	484	1,118	353	848	239	403	298	589	326	696	2,206	4,813
Taber .....	5,751	206	1,914	89	96	107	800	128	64	108	75	133	8,700	771
Wetaskiwin .....	..	66	..	65	..	20	..	20	..	..	..	..	..	171
Group 5:														
Camrose .....	1,105	1,145	800	1,021	605	873	364	523	336	541	644	705	3,914	4,808
Castor .....	991	2,186	605	1,777	80	653	36	268	23	259	62	224	1,802	5,317
Pakowki .....	..	113	..	17	..	11	..	..	..	8	..	..	5	49
Redcliff .....	114	268	95	234	46	110	6	20	..	74	30	155	313	861
Rochester .....	283	..	184	..	93	..	..	..	22	..	..	..	617	..
Spence .....	575	51	658	48	488	36	369	14	298	12	348	..	2,836	161
Tofield .....	1,334	206	1,773	99	1,113	22	894	6	800	10	715	..	6,629	343
Westlock .....	40	82	..	..	..	..	..	..	..	..	..	..	40	82
Total .....	28,400	60,489	23,143	56,526	16,315	50,474	17,010	40,414	13,542	40,183	13,609	39,489	112,019	287,575
SUMMARY														
Bituminous .....	42,197	78,193	39,055	73,681	45,626	74,047	40,989	67,366	43,139	70,681	41,715	66,599	252,721	430,567
Sub-Bituminous .....	28,400	60,489	23,143	56,526	16,315	50,474	17,010	40,414	13,542	40,183	13,609	39,489	112,019	287,575
Total .....	70,597	138,682	62,198	130,207	61,941	124,521	57,999	107,780	56,681	110,864	55,324	106,088	364,740	718,142



Total number of shifts worked above and below ground by areas during each month, for the six months ending December 31, 1946:  
SUB-BITUMINOUS FIELD

Areas	July		August		September		October		November		December		Total July to Dec.		Total for year 1946	
	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground	Above Ground	Below Ground
Group 4:																
Ardley	68	34	18	102	42	52	103	186	188	243	219	238	570	855	842	1,340
Big Valley	735	103	74	172	833	269	115	348	105	373	187	626	618	1,891	856	2,816
Brooks	268	780	1,040	1,219	495	1,377	931	1,383	1,166	1,337	936	1,792	5,641	7,888	9,494	16,969
Carbon	19	145	26	186	24	174	27	209	582	209	546	210	188	1,133	312	2,952
Champion	8,664	25,459	9,712	35,515	8,682	30,097	9,227	34,284	9,558	31,760	9,008	30,976	54,851	188,091	116,067	395,322
Drumheller	2,010	6,524	2,311	8,242	2,321	8,313	3,583	9,975	2,761	10,698	7,245	11,124	20,231	54,876	34,170	101,854
Edmonton	58	390	113	541	135	491	86	537	104	519	126	614	622	3,092	1,376	7,538
Gleichen	10	18	3	22	555	26	20	42	84	44	9	22	126	174	193	308
Milk River	452	930	518	1,054	816	1,106	581	1,205	593	1,198	649	1,411	3,348	6,904	5,554	11,717
Pembina	538	84	497	204	816	198	796	136	1,804	393	1,188	232	5,639	1,247	14,339	2,018
Taber	10	10	20	20	30	30	46	46	49	57	8	82	57	245	57	416
Whitecourt																
Group 5:																
Camrose	1,189	779	1,161	824	767	828	1,162	910	1,829	895	1,537	976	7,645	5,212	11,559	10,020
Castor	92	525	194	743	308	812	436	1,043	861	1,513	1,029	1,409	2,920	6,043	4,722	11,362
Pakowki	58	229	72	238	83	267	98	260	68	322	58	259	437	1,575	750	2,436
Redcliff	2	2	2	2	78	170	170	261	261	110	235	84	748	1,365	1,365	411
Rochester	233	8	340	8	375	16	433	32	835	110	649	84	2,865	250	5,701	1,244
Sheerness	859		731		1,024	70	1,576	135	1,760	342	2,172	346	8,122	901	14,751	1,882
Tofield							55		111		113		279		319	
Westlock																
Total	15,255	36,018	17,196	49,090	16,607	44,126	19,918	50,758	22,744	50,013	25,981	50,421	117,701	280,426	229,720	568,001
TOTAL BITUMINOUS AND SUB-BITUMINOUS COAL FIELDS																
Bituminous	43,311	66,907	43,722	69,197	39,086	62,880	41,849	65,713	39,776	55,965	39,671	57,425	246,415	378,087	499,136	808,654
Sub-Bituminous	15,255	36,018	17,196	49,090	16,607	44,126	19,918	50,758	22,744	50,013	25,981	50,421	117,701	280,426	229,720	568,001
Total	58,566	102,925	60,918	118,287	55,693	107,006	61,767	116,471	62,520	105,978	64,652	107,846	364,116	658,513	728,856	1,376,655

## THE MINES BRANCH

## AMOUNT OF MINE TIMBER USED DURING THE YEAR

## BITUMINOUS COAL FIELD

Areas	Round Timber, lineal feet	Lumber, B.M. feet	Ties, lineal feet	Lagging, lineal feet	Slabs, cords	Spraggs lineal feet
Group 1:						
Cascade .....	386,460			35,920		
Nordegg .....	1,141,830					
Group 2:						
Crowsnest .....	4,397,138	1,337,353	22,245	2,044,388		6,700
Mountain Park .....	807,607	228,692			609	
Group 3:						
Coalspur .....	735,005					
Halcourt .....	1,600				1,000	
Lethbridge .....	2,778,709	16,411	11,580		45	
Morley .....	8,000					
Pekisko .....	9,000					
Pincher .....	2,700					
Saunders .....	263,135		76,000		34,500	
Total .....	10,531,184	1,582,456	109,825	2,080,308	36,154	6,700

## SUB-BITUMINOUS COAL FIELD

Group 4:						
Ardley .....	13,920					
Big Valley .....	20,891					
Carbon .....	133,058			20,495		
Champion .....	28,000					
Drumheller .....	7,607,712		241,743		21,536½	
Edmonton .....	2,032,276		25,628		30	
Gleichen .....	65,970					
Milk River .....	7,600					
Pembina .....	178,800					
Taber .....	17,700					
Wetaskiwin .....	27,206					
Group 5:						
Camrose .....	135,000					
Castor .....	155,109					
Pakowki .....	2,100					
Redcliff .....	34,900					
Sheerness .....	4,388					
Tofield .....	27,000					
Westlock .....	1,415					
Total .....	10,493,045		267,371	20,495	21,566½	

PARTICULARS OF LAMPS IN THE BITUMINOUS AND SUB-BITUMINOUS COAL  
FIELDS DURING THE YEARS 1945 AND 1946

## BITUMINOUS

	1945	1946
Portable Electric Lamps, Edison Cap Type .....	4,301	4,062
Wolfe Flame Type .....	233	367
Total .....	4,534	4,429

## SUB-BITUMINOUS

	1945	1946
Portable Electric Lamps, Edison Cap Type .....	1,605	1,841
Portable Electric Lamps, Wheat Cap Type .....		30
Wolfe Flame Type .....	180	171
Koehler Flame Type .....	19	14
Total .....	1,804	2,056

**QUANTITY OF EXPLOSIVES USED IN POUNDS FOR BLASTING COAL:  
BITUMINOUS COAL FIELD**

Areas	Names of Explosives							Total
	Polar Forcite	Polar Monobel No. 4	Polar Monobel No. 14	CXL-ITE	Cardox	C.O.2	Pellets	
Group 1: Cascade .....		55,200	360					55,560
Group 2: Crownsnest .....		80,472			4,015			84,487
Mountain Park .....	20,064	12,471	69,131					101,666
Group 3: Coalspur .....	69,950	20,245	109,727					199,922
Halcourt .....		50					130	180
Lethbridge .....		28,087	23,822		9,959	3,750	1,650	67,268
Morley .....			700					700
Pekisko .....			810					810
Pincher .....		90	100					190
Saunders .....			10,502				5,600	16,102
No Area .....				50			100	150
Total .....	90,014	196,615	215,152	50	13,974	3,750	7,480	527,035

**SUB-BITUMINOUS COAL FIELD**

Areas	Names of Explosives					Total
	Pellets	Polar Monobel No. 4	Polar Monobel No. 14	CXL-ITE No. 2	Cardox	
Group 4: Ardley .....	3,464		1,050			4,514
Big Valley .....	1,250					1,250
Brooks .....	6,400		200			6,600
Carbon .....	10,944		478			11,422
Champion .....	4,900					4,900
Drumheller .....	84,133	23,050	63,840	800	14,385	186,208
Edmonton .....	1,924	5,550	14,340			21,814
Gleichen .....	4,665		590			5,255
Milk River .....	650					650
Pembina .....	200	50	4,340			4,590
Taber .....	5,350	5,100				10,450
Wetaskiwin .....	300		116			416
Group 5: Camrose .....			4,175			4,175
Castor .....	12,375	300				12,675
Pakowki .....			50			50
Redcliff .....	2,200					2,200
Rochester .....	330		250			580
Sheerness .....	955	3				958
Tofield .....	14,300		3,500			17,800
Westlock .....			45			45
Total .....	154,340	34,053	92,974	800	14,385	296,552

## THE MINES BRANCH

Number of tons of coal produced per pound of Explosives used for blasting coal:

## BITUMINOUS COAL FIELD

Areas	Number of tons of coal mined	Number of pounds of explosive used	Tons of coal mined per pound of explosive used
Group 1:			
Cascade .....	313,608	55,560	5.64
Nordegg .....	333,368	...	...
Group 2:			
Crowsnest .....	2,256,741	84,487	26.71
Mountain Park .....	1,109,465	101,666	10.91
Group 3:			
Coalspur .....	832,987	199,922	4.16
Halcourt .....	1,662	180	9.23
Lethbridge .....	469,618	67,268	6.98
Morley .....	1,238	700	1.77
Pekisko .....	1,885	810	2.32
Pincher .....	488	190	2.56
Saunders .....	68,146	16,102	4.23
No Area .....	390	150	2.60
Total .....	5,389,596	527,035	10.23

## SUB-BITUMINOUS COAL FIELD

Group 4:			
Ardley .....	12,228	4,514	2.70
Big Valley .....	10,106	1,250	8.08
Brooks .....	130,604	6,600	19.79
Carbon .....	78,149	11,422	6.84
Champion .....	7,348	4,900	1.50
Drumheller .....	1,946,170	186,208	10.45
Edmonton .....	478,900	21,814	21.95
Gleichen .....	16,676	5,255	3.17
Milk River .....	1,084	650	1.67
Pembina .....	60,106	4,590	13.10
Taber .....	289,849	10,450	27.70
Wetaskiwin .....	1,389	416	3.33
Whitecourt .....	79	...	...
Group 5:			
Camrose .....	90,766	4,175	21.74
Castor .....	71,166	12,675	5.61
Pakowki .....	123	50	2.46
Redcliff .....	8,427	2,200	3.83
Rochester .....	5,949	580	10.26
Sheerness .....	56,193	958	5.87
Tofield .....	168,640	17,800	9.47
Westlock .....	907	45	2.02
Total .....	3,434,859	296,552	11.58

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Estimated number of shots fired for blasting coal:

## BITUMINOUS COAL FIELD

Areas	Electric Deton- ators	Electric Squibs	Fuse	Cardox Heaters	Total
Group 1:					
Cascade .....	79,307	..	..	..	79,307
Group 2:					
Crowsnest .....	794,671			4,015	798,686
Mountain Park .....	64,727				64,727
Group 3:					
Coalspur .....	97,080		264		97,344
Halcourt .....		480			480
Lethbridge .....	75,136	3,210		9,959	88,305
Morley .....	750				750
Pekisko .....	910				910
Pincher .....	655				655
Saunders .....	15,559				15,559
No Area .....	75	150			225
Total .....	1,128,870	3,840	264	13,974	1,146,948

## SUB-BITUMINOUS COAL FIELD

Group 4:					
Ardley .....	1,175	2,454	200		3,829
Big Valley .....	1,800	650			2,450
Brooks .....	394	12,789			13,183
Carbon .....	1,617	8,339	610		10,566
Champion .....	418	4,000	250		4,668
Drumheller .....	192,768	68,510		14,385	275,663
Edmonton .....	76,131	2,854			78,985
Gleichen .....	100	4,721	2,227		7,048
Milk River .....	3,450				3,450
Pembina .....	6,483				6,483
Taber .....	9,700	450	9,700		19,850
Wetaskiwin .....		525			525
Group 5:					
Camrose .....	5,225				5,225
Castor .....	4,075	6,205	425		10,705
Pakowki .....	100				100
Redcliff .....		2,000			2,000
Rochester .....	444				444
Sheerness .....	503	325	250		1,078
Tofield .....	9,000	3,100			12,100
Westlock .....	60				60
Total .....	313,443	116,922	13,662	14,385	458,412

## THE MINES BRANCH

Number of miss-fire shots recorded in blasting coal in the Province:

## BITUMINOUS COAL FIELD

Areas	Cardox Heaters	Electric Detonators	Electric Squibs	Squibs	Fuse	Total
Group 2:						
Crowsnest .....		4				4
Mountain Park .....		2				2
Group 3:						
Coalspur .....		4				4
Lethbridge .....	165	1	1			167
Pekisko .....		2				2
Saunders .....		5				5
Total .....	165	18	1			184

## SUB-BITUMINOUS COAL FIELD

Areas	Cardox Heaters	Electric Detonators	Electric Squibs	Squibs	Fuse	Total
Group 4:						
Ardley .....		10				10
Big Valley .....			1			1
Brooks .....			5			5
Carbon .....			10			10
Drumheller .....	20	25	14			59
Edmonton .....		24				24
Gleichen .....		2			8	10
Pembina .....		1				1
Taber .....		2			10	12
Group 5:						
Camrose .....		1				1
Castor .....		11	5			16
Redcliff .....			11			11
Tofield .....		3	24			27
Total .....	20	79	70		18	187

Quantity of Explosives used in pounds for blasting rock in Coal-mines in the Province:

Areas	Names of Explosives						Total
	Pellets	Polar Monobel No. 4	Polar Monobel No. 14	Stopette	CXL-ITE	Polar Forcite	
Big Valley .....			6				6
Camrose .....			8				8
Carbon .....	75		15				90
Cascade .....					2,500		2,500
Champion .....					50		50
Coalspur .....						21,300	21,300
Crowsnest .....					22,931	32,692	55,623
Drumheller .....		900	50	4,100	12,350		17,400
Edmonton .....			933		4,800		5,733
Gleichen .....			325				325
Lethbridge .....		500			20		520
Mountain Park .....					2,715	37,795	40,510
Nordegg .....					294		294
Pekisko .....			1,030				1,030
Pembina .....			230				230
Redcliff .....		40					40
Saunders .....	45		900				945
Sheerness .....					38		38
Taber .....					2,100		2,100
Wetaskiwin .....			34				34
Total .....	120	1,440	3,531	4,100	47,798	91,787	148,776

## Estimated number of shots fired for blasting rock in Coal-mines in the Province:

Areas	Electric Deton- ators	Electric Squibs	Fuse	Total
Big Valley	15			15
Camrose	20			20
Carbon		64	20	84
Cascade	6,300			6,300
Champion			50	50
Coalspur	2,335		300	2,635
Crowsnest	24,377			24,377
Drumheller	39,234			39,234
Edmonton	7,634			7,634
Gleichen	170		900	1,070
Lethbridge	747			747
Mountain Park	9,479			9,479
Nordeg	945			945
Pekisko	930			930
Pembina	240			240
Redcliff	80			80
Saunders	785			785
Sheerness	40			40
Taber	5,200			5,200
Wetaskiwin		75		75
Total	98,531	139	1,270	99,940

## Number of miss-fire shots recorded in blasting rock in Coal-mines in the Province:

Cascade	1			1
Crowsnest	5			5
Mountain Park	6			6
Gleichen			3	3
Taber	2			2
Total	14		3	17

## THE MINES BRANCH

## ELECTRICITY

The rules for the installation and use of electricity in or about mines require a return to be made to the Department on or before January 15th of each year, giving size, type and any other particulars which may be required of electrical apparatus in use above and below ground. According to the returns received from the different mines, electricity was used in 75 mines in 1946. A summary of these returns regarding the horse-power of electrical apparatus in use is given below.

Areas	No. of mines using Elec- tricity	Horse-power of electrical apparatus in use		Total Horse-power	Purchased Power
		Above Ground	Below Ground		
Ardley .....	1	...	3	3	
Big Valley .....	1	28	35	63	14,960
Brooks .....	1	80		80	
Camrose .....	2	191	35	226	66,650
Carbon .....	5	110	223	333	66,260
Cascade .....	1	1,928	100	2,028	3,022,830
Castor .....	2	150	6	156	
Coalspur .....	7	1,880	674	2,554	
Crowsnest .....	6	19,532	2,824	22,356	25,757,795
Drumheller .....	20	3,511	5,434	8,945	6,783,463
Edmonton .....	12	721	1,288	2,009	1,266,608
Gleichen .....	1	3	30	33	7,620
Lethbridge .....	4	2,124	1,615	3,739	2,940,360
Mountain Park .....	3	4,456	1,540	5,996	
Nordegg .....	1	3,256	109	3,365	5,664,000
Pembina .....	1	45	65	110	
Redcliff .....	1	128	60	188	69,500
Saunders .....	2	115	108	223	259,200
Taber .....	3	182	30	212	34,309
Tofield .....	1	...	170	170	58,860
<b>Total .....</b>	<b>75</b>	<b>38,440</b>	<b>14,349</b>	<b>52,789</b>	<b>46,012,415</b>

## COAL-CUTTING MACHINERY

Areas	No. of machines operated by		Tons of coal mined by	
	Elec- tricity	Com- pressed air	Elec- tricity	Com- pressed air
		Picks	Mach.	
Big Valley .....	1		1	8,706
Camrose .....	2			30,000
Carbon .....	4		2	35,729
Cascade .....		37	8	72,301
Castor .....	2		4	7,732
Coalspur .....			38	289,033
Crowsnest .....		240	7	1,702,374
Drumheller .....	91			1,857,616
Edmonton .....	22		3	395,029
Gleichen .....	1			4,919
Lethbridge .....	28			450,984
Milk River .....			1	732
Pembina .....	1		2	55,192
Redcliff .....	2			7,870
Saunders .....			9	68,146
Taber .....			1	1,656
Tofield .....	1			2,389
<b>Total .....</b>	<b>155</b>	<b>277</b>	<b>76</b>	<b>2,852,322</b>
				<b>2,270,769</b>



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## ACCIDENTS

Summary table showing Accidents occurring in Mines from 1906 to 1946 inclusive, reportable under The Coal Mines Regulation Act.

Year	Output	Accidents			Tons of coal mined per accident		
		Fatal	Serious	Slight	Fatal	Serious	Slight
1906	1,385,000	10	11	20	138,500	126,909	60,250
1907	1,834,745	19	18	68	96,565	101,930	26,981
1908	1,845,000	11	38	13	167,727	48,552	141,923
1909	2,174,329	9	42	18	241,952	51,769	120,796
1910	3,036,757	61a	41	58	49,782	71,067	52,375
1911	1,694,564	7	32	45	242,080	52,955	37,658
1912	3,446,349	21	38	58	164,111	90,693	59,419
1913	4,306,346	28	60	83	152,789	71,772	51,883
1914	3,821,739	209b	44	50	18,286	86,857	76,434
1915	3,434,891	18	33	33	190,827	104,087	104,087
1916	4,638,604	20	51	34	232,430	91,149	136,723
1917	4,863,414	24	62	39	202,642	78,442	124,703
1918	6,148,620	22	60	77	279,483	102,477	79,860
1919	5,022,412	21	56	54	239,162	89,685	93,008
1920	6,908,923	29	53	38	238,733	130,371	181,814
1921	5,937,195	21	64	25	282,721	92,769	237,488
1922	5,976,432	35	38	35	170,755	157,274	170,755
1923	6,866,923	22	44	10	312,133	156,066	686,692
1924	5,203,713	21	42	40	247,796	123,898	130,093
1925	5,883,394	30	59	56	196,113	99,718	105,060
1926	6,508,908	39c	67	119	166,398	97,148	54,696
1927	6,936,780	26	76	115	266,799	91,273	60,320
1928	7,334,179	28	71	122	261,935	103,298	60,166
1929	7,147,250	31	69	98	230,556	103,583	72,931
1930	5,755,911	11	69	97	523,265	83,419	59,339
1931	4,563,309	16	75	73	285,207	60,844	62,511
1932	4,867,984	11	61	96	442,544	79,803	50,708
1933	4,714,784	6	60	109	785,797	78,580	43,255
1934	4,748,848	15	68	70	316,589	69,836	67,840
1935	5,462,973	35d	66	113	156,085	82,772	48,352
1936	5,696,375	11	79	101	517,852	72,106	56,400
1937	5,551,682	20	72	73	277,584	77,107	76,050
1938	5,230,025	21e	72	135	249,040	72,639	38,741
1939	5,518,105	17	57	180	324,594	96,809	30,657
1940	6,205,088	13	79	97	477,314	78,545	63,970
1941	6,970,064	48f	78	142	145,209	89,360	49,084
1942	7,754,279	17	92	148	456,134	84,285	52,393
1943	7,677,982	25g	73	152	307,119	105,178	50,513
1944	7,427,433	10	70	125	742,743	106,106	59,419
1945	7,801,248	23h	51	168	339,185	154,925	46,436
1946	8,824,455	12	76	128	735,371	116,111	68,941
Total	217,127,012	1,073	2,367	3,315	202,355	90,885	65,498

a. Including thirty-one deaths caused by the Bellevue Explosion.

b. Including one hundred and eighty-nine deaths caused by the Hillcrest Explosion.

c. Including ten deaths caused by the McGillivray Creek Coal & Coke Co., Ltd. Explosion.

d. Including sixteen deaths caused by the explosion at the Lethbridge Collieries Ltd., at Coalhurst.

e. Including five deaths caused by the explosion at Hinton Collieries, Limited, Hinton.

f. Including four deaths caused by an explosion at North American Collieries, Ltd., Western Crown Mine, and twenty-nine deaths caused by an explosion at Brazeau Collieries, Ltd., Nordegg.

g. Including four deaths caused by an explosion at the Kerralta Coal Co., Lethbridge.

h. Including seven deaths caused by an explosion at Luscar Coals, Ltd., Luscar.

## THE MINES BRANCH

ACCIDENTS DURING 1946, CLASSIFIED ACCORDING TO THE COAL FIELDS  
IN WHICH THEY OCCURRED

Year	Output	Accidents			Tons of coal mined per accident		
		Fatal	Serious	Slight	Fatal	Serious	Slight
Bituminous . . . . .	5,389,596	7	42	79	769,942	128,324	68,223
Sub-Bituminous . . . . .	3,434,859	5	34	49	686,972	101,025	70,099
Total . . . . .	8,824,455	12	76	128	735,371	116,111	68,941

COMPARISON OF PROTECTIVE CLOTHING USED FOR THE YEARS 1943, 1944, 1945  
AND 1946:

	1943	1944	1945	1946
Hard Hats . . . . .	3,485	4,333	4,673	4,898
Safety Shoes, pairs . . . . .	2,146	2,496	3,891	2,704
Goggles, pairs . . . . .	352	758	687	877
Knee Pads, pairs . . . . .	35	271	238	268

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Comparison of Accidents per 1,000,000 tons and per 1,000 men employed, 1915-1946:

Year	Tonnage	Total No. of men employed	Fatal Accidents			Serious Accidents			Slight Accidents			Total		
			No.	Per 1,000,000 tons	Per 1,000 men employed	No.	Per 1,000,000 tons	Per 1,000 men employed	No.	Per 1,000,000 tons	Per 1,000 men employed	No.	Per 1,000,000 tons	Per 1,000 men employed
1915	3,434,891	6,445	18	5.24	2.79	33	9.63	5.12	33	9.63	5.12	84	24.45	13.03
1916	4,538,604	7,570	20	4.31	2.64	51	10.99	6.74	34	7.33	4.49	105	22.61	13.87
1917	4,863,414	8,310	24	4.93	2.88	62	12.75	7.46	39	8.02	4.69	125	25.91	15.04
1918	6,148,620	8,774	22	3.57	2.51	60	9.95	6.84	77	12.52	7.78	159	25.85	18.12
1919	5,022,412	7,573	21	4.18	2.78	56	11.15	7.39	54	10.75	7.13	131	26.28	17.30
1920	6,908,923	8,688	29	4.20	2.99	53	7.81	6.10	38	5.50	4.37	120	17.37	13.81
1921	5,937,195	10,010	21	3.54	2.10	64	10.78	6.39	25	4.23	2.50	110	18.53	10.99
1922	5,976,432	8,547	35	5.86	4.09	38	6.36	4.45	35	5.86	4.09	108	18.07	12.64
1923	6,866,923	9,927	22	3.19	2.21	44	6.39	4.43	10	1.45	1.00	76	11.07	7.65
1924	5,203,713	7,317	21	4.03	2.86	42	8.07	5.74	40	7.68	5.47	103	19.79	14.35
1925	5,883,394	8,774	30	5.10	3.40	59	10.03	3.42	56	9.52	6.38	145	24.65	16.53
1926	6,508,908	8,763	39c	5.99	4.99	67	10.29	7.65	119	10.33	13.58	225	34.57	25.68
1927	6,936,780	9,016	26	3.75	2.88	76	10.96	8.43	115	16.50	12.71	217	31.28	24.06
1928	7,334,179	9,496	28	3.82	2.96	71	9.68	7.48	122	13.63	12.85	221	30.12	23.27
1929	7,147,250	9,572	31	4.34	3.24	69	9.65	7.21	98	12.71	10.24	198	27.70	20.30
1930	5,755,911	8,889	11	1.91	1.24	69	11.99	7.76	97	17.20	10.90	177	30.75	19.91
1931	4,563,309	8,070	16	3.51	1.98	75	16.44	9.27	73	16.00	9.04	164	35.92	20.32
1932	4,867,984	7,837	11	2.26	1.40	61	12.53	7.78	96	19.72	12.23	168	34.51	21.43
1933	*4,714,784	8,042	6	1.27	1.75	60	12.73	7.46	109	20.99	13.55	175	27.12	21.76
1934	*4,748,848	7,863	15	3.14	1.91	68	14.31	8.65	70	14.74	13.55	153	32.21	19.45
1935	*5,462,973	7,824	35d	6.40	4.47	66	12.08	8.44	117	20.68	18.90	214	39.17	27.35
1936	*5,696,375	8,110	11	1.93	1.36	79	13.87	9.73	101	17.73	12.45	191	33.53	23.55
1937	*5,551,683	7,836	20	3.60	2.55	72	12.97	9.19	73	13.32	9.32	165	29.72	21.06
1938	*5,230,025	7,411	21e	4.01	2.83	72	13.76	9.71	135	25.81	18.21	228	43.59	30.76
1939	*5,518,105	7,456	17	3.08	2.27	57	10.33	7.64	180	32.60	24.14	254	46.03	34.06
1940	*6,205,088	7,418	13	2.10	1.75	70	12.73	10.65	97	15.63	13.08	189	30.46	25.48
1941	*6,970,064	7,714	48f	6.89	5.22	73	11.19	10.11	142	20.37	18.41	268	38.73	34.74
1942	*7,754,279	8,040	17	2.19	2.11	92	11.86	11.44	148	19.09	18.40	257	33.14	31.95
1943	*7,627,982	8,636	25g	3.26	2.89	73	9.51	8.45	152	19.80	17.60	280	32.56	28.95
1944	*7,427,433	8,373	10	1.34	1.19	70	9.42	8.35	125	16.83	14.92	205	27.60	24.47
1945	7,801,248	8,509	23	2.93	2.76	51	6.53	6.13	168	21.53	20.24	242	31.02	29.12
1946	8,824,455	8,583	12	1.36	1.39	76	8.61	8.85	128	14.50	14.91	216	24.47	25.16

c. Including 10 deaths by explosion at McGillivray Creek Coal & Coke Co., Ltd., Coleman.

d. Including 16 deaths by explosion at Lethbridge Collieries Ltd., Coalhurst.

e. Including 5 deaths by explosion at Hinton Collieries Ltd., Hinton.

f. Including 4 deaths by explosion at North American Collieries, Ltd., East Coulee, and 29 deaths by explosion at Brazeau Collieries, Ltd., Nordegg.

g. Including four deaths caused by an explosion at the Kerralta Coal Co., Lethbridge.

\*Output does not include coal produced by farmers under permit.

## THE MINES BRANCH

Number of tons produced per accident:

## BITUMINOUS COAL FIELD

Areas	Output	Average No. of men employed	No. of tons produced per accident			
			Fatal	Serious	Slight	Total
Group 1:						
Cascade .....	313,608	317		106,804	313,608	104,536
Nordegg .....	333,368	469		66,673	66,673	33,336
Group 2:						
Crowsnest .....	2,256,741	2,231	564,185	132,749	62,687	39,592
Mountain Park ..	1,109,465	743	554,732	123,273	92,455	48,237
Group 3:						
Coalspur .....	832,987	705	832,987	416,493	118,998	83,298
Halcourt .....	1,662	5				
Lethbridge .....	469,618	590		782,269	27,624	20,418
Morley .....	1,238	4				
Pekisko .....	1,885	6				
Pincher .....	488	4				
Saunders .....	68,146	120		68,146	68,146	34,073
No Area .....	390	7				
Total .....	5,389,596	5,201	769,942	128,323	68,222	42,106

## SUB-BITUMINOUS COAL FIELD

Group 4:						
Ardley .....	12,228	14				
Big Valley .....	10,106	21				
Brooks .....	130,604	42				
Carbon .....	78,149	98	78,149			78,149
Champion .....	7,348	13				
Drumheller .....	1,946,170	2,116	486,542	77,847	57,240	30,891
Edmonton .....	478,900	575		53,211	31,927	19,912
Gleichen .....	16,676	40				
Milk River .....	1,084	5				
Pembina .....	60,106	82				
Taber .....	289,849	66				
Wetaskiwin .....	1,389	3				
Whitecourt .....	79	2				
Group 5:						
Camrose .....	90,766	85				
Castor .....	71,166	86				
Pakowki .....	123	2				
Redcliff .....	8,427	16				
Rochester .....	5,949	7				
Sheerness .....	56,193	28				
Tofield .....	168,640	75				
Westlock .....	907	6				
Total .....	3,434,859	3,382	686,972	101,025	70,099	39,032

## SUMMARY

Bituminous .....	5,389,596	5,201	769,942	128,323	68,222	42,106
Sub-Bituminous .....	3,434,859	3,382	686,972	101,025	70,099	39,032
Total .....	8,824,455	8,583	735,371	116,111	68,941	40,854

Classification of Accidents according to output of mines which produced during the year 1946:

	Under 1,000 tons	From 1,000 to 5,000 tons	From 5,000 to 10,000 tons	From 10,000 to 50,000 tons	From 50,000 to 100,000 tons	From 100,000 to 150,000 tons	From 150,000 to 200,000 tons	From 200,000 to 300,000 tons	Over 300,000 tons	Total
Fatal .....	.....	.....	.....	1	2	1	2	2	4	12
Serious .....	.....	.....	.....	4	9	8	12	18	25	76
Slight .....	.....	.....	.....	15	13	18	17	21	44	128
Total .....	.....	.....	.....	20	24	27	31	41	73	216

Tons of coal produced per accident:										
Fatal .....	.....	.....	.....	746,615	342,126	833,053	794,120	477,825	941,090	735,371
Serious .....	.....	.....	.....	186,654	76,028	104,132	132,353	53,092	150,574	116,111
Slight .....	.....	.....	.....	49,774	52,635	46,281	93,426	45,507	85,554	68,941
Total .....	.....	.....	.....	37,331	28,511	30,854	51,234	23,309	51,567	40,854

## FATAL ACCIDENTS

Frank Magee, surface cager, age 68, on January 25th, in the mine operated by the Commander Coal Co. Ltd., Drumheller. He had sent cage to bottom of shaft in the Main Shaft, and then forgetting he had done so, pushed a car loaded with timber and fell down shaft with it, causing death.

John McPhail, steam engineer, age 69, on June 3rd, in the mine operated by the West Canadian Collieries Ltd., Blairmore. While crossing track in tippie yard, he was hit by the locomotive, causing death.

John Dutka, miner, age 50, on June 10th, in the mine operated by the McGillivray Creek Coal & Coke Co. Ltd., Coleman. While mining in a prone position, in 9 Cross Cut, 2 room, 1 Level, 4 Seam, a piece of rock fell on his stomach, causing fatal injuries.

Olivia Angelo, driver boss, age 36, on August 10th, in the mine operated by the International Coal & Coke Co. Ltd., Coleman. While at 21 chute, D Level, South, derailed loaded car caught workman against high side rib, causing fatal injuries.

Donald Graham, chute loader, age 20, August 10th, in the mine operated by the International Coal & Coke Co. Ltd., Coleman. While at 21 chute, D Level, South, derailed loaded car caught workman against high side rib, causing fatal injuries.

Peter Wetyk, driver, age 24, on August 7th, in the mine operated by the Foothills Collieries Ltd., Foothills. He struck his head against the end of a tie or rail in No. 6 Entry north, causing fractured second cervical vertebrae, resulting in death.

Steve Wons, miner, age 48, on August 23rd, in the mine operated by the Commander Coal Co. Ltd., Drumheller. Workman was putting up safety jack to catch lip of cap rock slab in "A" off 4 Entry, 7 West district, when slab fell on him, causing fatal injuries.

Louis Papesche, machine runner, age 60, on August 27th, at mine operated by the Inland Coal Co. Ltd., Three Hills. While operating a machine at the face of room 27, in 3 South, a piece of rock weighing 400 pounds was dislodged, striking workman on back of head, causing fatal injuries.

K. Mroczka, driver, age 40, August 29th, in the mine operated by the Luscar Coals Ltd., Luscar. Was jumping on moving trip in 45 Raise, main entry, 3 mine, after putting in sprags, and was caught between a car and ladder causing fatal injuries.

George Puzniak, timber packer, age 25, October 5th, in the mine operated by the Mountain Park Coals Ltd., Mountain Park. While operating air tugger hoist in 29 room, 3 Panel, 3 Seam, apparently his clothing became entangled with the rope, pulling him over the top of hoist, causing death.

Stanley Molyneaux, duckbill operator, age 25, on November 29th, in the mine operated by the Monarch Coal Mining Co. Ltd., Drumheller. While pinching coal from face in 16 room, 3 south west, a large piece of rock fell on him, causing instant death.

Edward Sereda, trimmer, age 20, on December 11th, in the mine operated by the Monarch Coal Mining Co. Ltd., Drumheller. While attempting to cross between the empty cars in 17 room, 3 South West, while they were still in motion, he was struck by conveyor pan, causing fatal injuries.

In addition to the above, the following deaths have occurred:

Paul Bielish, timber packer, age 56, on January 11th, in the mine operated by the Hillcrest-Mohawk Collieries Ltd., Bellevue. He died of natural causes in 4 North incline.

A. W. White, surface labourer, age 60, on February 11th, in the mine operated by the Bighorn & Saunders Creek Collieries Ltd., Saunders. While shovelling snow off rails below tippie, he suddenly fell forward. Death was due to myocarditis.

Maurice Zorlack, surface labourer, age 26, on May 27th, in the mine operated by the McLeod River Hard Coal Co. Ltd., Mercoal. Was electrocuted when hand winch he was operating came into contact with power line.

Burl Bennett, workman, on July 13th, at the mine operated by the Southern Alberta Coal Co. Ltd., Taber. Was electrocuted at the transformer station near tippie plant.

S. Cheverno, box-car loader, age 52, on October 19th, in the mine operated by the Foothills Collieries Ltd., Foothills. He died due to heart seizure in the main slope while watching hoist.

G. Beltrami, miner, age 53, on December 30th, in the mine operated by the West Canadian Collieries Ltd., Blairmore. He died in wash-house from natural causes.

## ACCIDENTS AS THEY OCCURRED BY MONTHS DURING THE YEAR 1946:

Months	Above Ground				Under Ground				Total Above and Under Ground
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
January	1		7	8		1	20	27	35
February		1	2	3		5	13	18	21
March			2	2		5	8	13	15
April			2	2		9	9	18	20
May		1	2	3		6	7	13	16
June	1		2	3	1	8	6	15	18
July		2	2	4		8	5	13	15
August			2	2	6	2	9	17	19
September			1	1		6	4	10	11
October			2	2	1	6	8	15	17
November		1	1	2	1	5	7	13	15
December			4	4	1	4	5	10	14
Total	2	5	27	34	10	71	101	182	216

## ACCIDENTS OCCURRING IN THE PROVINCE ABOVE AND UNDER GROUND DURING THE YEAR 1946:

Cause of Accident	Above Ground				Under Ground				Total Above and Under Ground
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Explosives						2	1	3	3
Haulage	1	3	1	5	5	29	28	62	67
Fall of rock					1	13	5	19	19
Fall of coal					1	10	13	24	24
Loading coal					2	2	15	19	19
Box-car handling	1		3	4					4
Timbering						1	4	5	5
Timber packing					1		3	4	4
Coal-cutting machinery						5	12	17	17
Slipped and fell			7	7		5	7	12	19
Tipple machinery			5	5					5
Miscellaneous		2	11	13		4	13	17	30
Total	2	5	27	34	10	71	101	182	216

## THE MINES BRANCH

Accidents occurring in the Province above and below ground for the year 1946:  
classified according to the areas in which they occurred:

## BITUMINOUS

Area	Above Ground				Under Ground				Total Above and Under Ground
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Cascade .....	..	..	..	..	..	2	1	3	3
Nordegg .....	..	1	1	2	..	4	4	8	10
Crowsnest .....	1	2	9	12	3	15	27	45	57
Mountain Park .....	..	1	6	7	2	8	6	16	23
Coalspur .....	..	..	2	2	1	2	5	8	10
Lethbridge .....	..	..	1	1	..	6	16	22	23
Saunders .....	..	..	..	..	..	1	1	2	2
Total .....	1	4	19	24	6	38	60	104	128

## SUB-BITUMINOUS

Carbon .....	..	..	..	..	1	..	..	..	1
Drumheller .....	1	..	7	8	3	25	27	55	63
Edmonton .....	..	1	1	2	..	8	14	22	24
Total .....	1	1	8	10	4	33	41	78	88





## THE MINES BRANCH

## BITUMINOUS—Continued

Cause	Above Ground				Under Ground				Total Above and Under Ground
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Coal-cutting Machinery, electrical shock handling trailing cable				1				1	1
Tipple Machinery, squeezed thumb between lever and stop			1	1					1
Tipple Machinery, piece of machinery fell on foot			1	1					1
Tipple Machinery, hit hand on eccentric of feeder			1	1					1
Tipple Machinery, compensator blew out									1
Loading Machinery, hit by discharged pan of conveyor						1		1	1
Loading Machinery, wrench slipped and hit hand						1		1	1
Loading Machinery, machine ran over foot									1
Loading Machinery, struck by conveyor			5	5		4	6	10	15
Loading Machinery, slipped and fell				2		2		1	3
Coupling Cars, foot squeezed between bumpers		2		2					1
Coupling Cars, arm squeezed between cars		1		1					1
Spragging Cars, squeezed between cars							2	2	2
Spragging Cars, wheel ran over foot							1	1	1
Spragging Cars, slipped under wheel of car							1	1	1
Spragging Cars, caught between car and post							1	1	1
Chute Loading, coal fell on hand							1	1	1
Chute Loading, coal fell on foot							1	1	1
Chute Loading, squeezed between car and chute							1	1	1
Chute Loading, hit by coal							2	2	3
Miscellaneous, caught finger re-ralling car								1	1
Miscellaneous, caught finger between two logs			1	1					1
Miscellaneous, rock slid on foot							1	1	1
Miscellaneous, blowing out air line hit by lagging						1			1
Miscellaneous, pick he was using hit his leg							1	1	1
Miscellaneous, horse fell on him							1	1	1
Miscellaneous, cut his finger using power saw							1	1	1
Miscellaneous, slipped off ladder			1	1					1
Miscellaneous, rail fell on foot							1	1	1
Miscellaneous, plank fell on his hand			1	1					1
Miscellaneous, sheet iron hit leg							1	1	1
Miscellaneous, piece iron slid on finger			1	1					1
Miscellaneous, riding on cars									1
Miscellaneous, cranking tractor, engine back-fired			1	1		1			1
Miscellaneous, wheels ran over him		1		1					1
Miscellaneous, fell into chute									1
Miscellaneous, rock fell on hand							1	1	1
Miscellaneous, caught thumb oiling tractor			1	1			1	1	1

Miscellaneous, moving hoist, hose broke and hit arm	1	4	19	24	6	38	60	104	128
Miscellaneous, moving heater and caught finger									
<b>Total</b>	<b>1</b>	<b>4</b>	<b>19</b>	<b>24</b>	<b>6</b>	<b>38</b>	<b>60</b>	<b>104</b>	<b>128</b>

## SUB-BITUMINOUS

[illegible]

## SUB-BITUMINOUS

Cause	Above Ground				Under Ground				Total Above and Under Ground
	Fatal	Serious	Slight	Total	Fatal	Serious	Slight	Total	
Coal-cutting Machinery, machine ran over foot	.....	.....	.....	.....	.....	1	.....	1	1
Coal-cutting Machinery, jack fell on his foot	.....	.....	.....	.....	.....	.....	1	.....	1
Coal-cutting Machinery, caught leg between chain and machine	.....	.....	.....	.....	.....	1	.....	.....	1
Coal-cutting Machinery, coal fell on foot	.....	.....	1	1	.....	.....	2	.....	2
Tipple Machinery, piece of iron hit foot	.....	.....	.....	.....	.....	.....	.....	.....	.....
Loading Machinery, rock fell on him	.....	.....	.....	.....	2	.....	.....	.....	2
Loading Machinery, coal rolled on hand	.....	.....	.....	.....	.....	.....	.....	.....	.....
Loading Machinery, foot caught in shaker roller	.....	.....	.....	.....	.....	.....	1	.....	1
Coupling Cars, leg squeezed between bumpers	.....	.....	.....	.....	.....	1	.....	.....	1
Coupling Cars, caught fingers between bumpers	.....	.....	.....	.....	.....	.....	1	.....	1
Spragging Cars, squeezed between car and prop	.....	.....	.....	.....	.....	1	.....	.....	1
Explosives, hit by flying cardox shell	.....	.....	.....	.....	.....	1	.....	.....	1
Explosives, hit by flying coal	.....	.....	.....	.....	.....	.....	1	.....	1
Miscellaneous, caught finger between steel plates	.....	.....	.....	.....	.....	.....	1	.....	1
Miscellaneous, hurt leg using chain blocks	.....	1	.....	1	.....	.....	.....	.....	1
Miscellaneous, helper hit him with mine tie	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous, iron fell on foot	.....	.....	1	1	.....	.....	.....	.....	.....
Miscellaneous, caught finger lifting conveyor pan	.....	.....	.....	.....	.....	.....	2	.....	2
Miscellaneous, timber fell on foot	.....	.....	1	1	.....	.....	.....	.....	.....
Miscellaneous, reeling wire, plank hit face	.....	.....	1	1	.....	.....	.....	.....	.....
Miscellaneous, while repairing mine car, it slipped on foot	.....	.....	1	1	.....	.....	.....	.....	.....
Total	1	1	8	10	4	33	41	78	88

## SUMMARY

Bituminous	1	4	19	24	6	38	60	104	128
Sub-Bituminous	1	1	8	10	4	33	41	78	88
Total	2	5	27	34	10	71	101	182	216



SUB-BITUMINOUS COAL FIELD

Name of Operator	Area	Above Ground			Under Ground			Total Above and Under Ground
		Fatal	Serious	Slight	Fatal	Serious	Slight	
Banner Coals, Ltd.	Edmonton	.....	.....	.....	.....	4	4	8
Beverly Coal, Ltd.	Edmonton	.....	1	.....	.....	1	2	4
Brilliant Coal Co.	Drumheller	.....	.....	.....	.....	2	7	9
Commander Coal Co.	Drumheller	.....	.....	.....	.....	2	3	5
Great West Coal Co., Ltd.	Edmonton	1	.....	.....	1	2	6	9
Hy-Grade Coal Mining Co., Ltd.	Drumheller	.....	.....	1	.....	2	3	8
Ideal Coal Co., Ltd.	Drumheller	.....	.....	.....	.....	1	.....	1
Inland Coal Co., Ltd.	Carbon	.....	.....	.....	.....	.....	1	1
Monarch Coal Mining Co., Ltd. (1473)	Drumheller	.....	.....	.....	.....	2	.....	2
Monarch Coal Mining Co., Ltd. (1573)	Drumheller	.....	.....	2	.....	.....	.....	10
Midland Coal Mining Co., Ltd.	Drumheller	.....	.....	.....	.....	5	.....	5
Minute Coal Co., Ltd.	Drumheller	.....	.....	.....	.....	.....	.....	1
Murray Collieries, Ltd.	Drumheller	.....	.....	.....	.....	.....	.....	1
Newcastle Collieries, Ltd.	Drumheller	.....	.....	.....	.....	.....	.....	1
Red Deer Valley Coal Co., Ltd.	Edmonton	.....	.....	.....	.....	.....	.....	1
Regal Coal Co., Ltd.	Edmonton	.....	.....	.....	.....	.....	.....	1
Rosedale Collieries, Ltd. (346)	Drumheller	.....	.....	.....	.....	.....	.....	1
Rosedale Collieries, Ltd. (436)	Drumheller	.....	.....	.....	.....	.....	.....	1
Saskatchewan Federated Co-Operatives, Ltd.	Drumheller	.....	.....	.....	.....	.....	.....	1
J. B. Starky Co., Ltd.	Edmonton	.....	.....	.....	.....	.....	.....	1
Total		1	1	8	10	4	33	88

SUMMARY

Bituminous	1	4	19	24	6	38	60	104	123
Sub-Bituminous	1	1	8	10	4	33	41	78	88
Total	2	5	27	34	10	71	101	182	216

LIST OF PROSECUTIONS INSTITUTED UNDER THE COAL MINES REGULATION ACT. FOR THE YEAR ENDING DECEMBER 31, 1946

Mine in which Contravention was Committed	Description of Defendant	Offence Charged	Result of Proceedings	Penalty	Costs
McLeod River Hard Coal Co. (1941) Ltd.	Machineman	Riding on coal trip without having first obtained permission from the Manager	Convicted	Fined \$15.00	\$9.75
Mountain Park Coals Ltd.	Miner	Unlawfully shooting at the coal face without having mined the place	Convicted	Fined \$10.00	4.60
Mountain Park Coals Ltd.	Miner	Unlawfully shooting the coal face without having mined the place	Convicted	Fined \$10.00	4.60
Mountain Park Coals Ltd.	Fireboss	Unlawfully firing shots at the coal face without having the place prepared	Convicted	Fined \$25.00	4.60
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$10.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$10.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$10.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$10.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	Did not sign report of his inspection	Convicted	Fined \$20.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$15.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$15.00 or 30 days	2.75
Luscar Coals Ltd.	Fireboss	No time recorded for inspection	Convicted	Fined \$15.00 or 30 days	2.75
Red Deer Valley Coal Co. Ltd.	Fireboss	Unlawfully fired a shot before finding if it was safe to do so	Convicted	Fined \$5.00	3.50
Red Deer Valley Coal Co. Ltd.	Fireboss	Allowed hole to be loaded without his supervision and allowed a person other than himself to couple detonator to shot firing cable	Convicted	Fined \$5.00	3.50
Red Deer Valley Coal Co. Ltd.	Miner	Unlawfully did couple up cable to detonator	Convicted	Fined \$5.00	4.00
McLeod River Hard Coal Co. (1941) Ltd.	Machineman	Riding on coal trip without having first obtained permission from the Manager	Convicted	Fined \$15.00	3.75
Regal Coal Co. Ltd.	Fireboss	Did commit an act likely to cause danger to the mine or to himself or to any person	Convicted	Fined \$5.00	2.50
Kost Nimko	Miner	Did fire shots not being a certified examiner and without authority from the manager or overman	Convicted	Fined \$25.00	3.75
Kost Nimko	Miner	Did fire shots with a device not approved by Chief Inspector of Mines	Convicted	Fined \$25.00	2.00
West Canadian Coll. Ltd. (Bellevue)	Timber Packer	Being in part of the mine where he was not supposed to be	Convicted	Fined \$1.00	2.50
Arcadia Coal Mines Ltd.	Mine Manager	Did allow P. E. Timm, who was not the holder of a 1st, 2nd or 3rd class certificate under the C.M.R. Act to make an inspection of mine as to presence of gas, ventilation, state of roof and sides and general safety	Convicted	Fined \$25.00	4.00
Arcadia Coal Mines Ltd.	Miner	Did inspection of mine for presence of gas, ventilation, state of roof and sides and general safety, not being holder of a certificate under the C.M.R.A. entitling him to do so	Not Convicted	None	
D. J. Gwilliam	Owner	Failed to send or cause to be sent monthly statements of production for May, June and July, 1946	Convicted	Fined \$50.00 or 60 days	2.50

## THE MINES BRANCH

## BOARD OF EXAMINERS

The Provincial Board of Examiners during the year 1946 consisted of the following:

As representing:

- (a) The Mine Inspectorate: John Crawford, Chief Inspector of Mines.
  - (b) Managers: A. C. Dunn and William Wilson.
  - (c) Working Miners: Andrew Campbell and Evan Morgan.
- Secretary: Gwen Hunt.

Examinations during the year were held as follows:

For third class at the following centres: Blairmore, Cadomin, Drumheller and Edmonton, on May 28th.

For first and second class on June 4, 5 and 6, at Blairmore, Cadomin, Edmonton and Lethbridge.

For Mine Surveyor on June 6th at Blairmore, Cadomin and Edmonton.

For Mine Electrician on May 28th at: Blairmore, Cadomin, Drumheller and Edmonton. This examination is divided into First and Second Class Mine Electrician.

Ten candidates presented themselves for examination for first class certificates, of whom two were successful. One First Class Interchange was also granted during the year.

Seventeen candidates presented themselves for examination for second class certificates, of whom eleven were successful.

Fifty-four candidates presented themselves for examination for third class certificates, of whom thirty-six were successful.

Nine candidates presented themselves for examination for mine surveyors' certificates, of whom two were successful.

Fourteen candidates presented themselves for examination for mine electricians' certificates—five for 1st class, of which two were successful; and nine for 2nd class, of whom four were successful.

The list following herewith gives the names of successful candidates for all classes of certificates during 1946.

LIST OF NAMES OF HOLDERS OF FIRST, SECOND AND THIRD CLASS, MINE  
SURVEYORS' AND MINE ELECTRICIANS' CERTIFICATES

Issued by the Government of the Province of Alberta during the year 1946.

## FIRST CLASS

Name	Address	Cert. No.	Date of Issue
Evans, Howell	Luscar	6	25- 7-46
Livingstone, R. D.	Lethbridge	7	29- 7-46

## FIRST CLASS INTERCHANGE

Marshall, Thomas	Calgary	8	13- 9-46
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## SECOND CLASS

Allen, Edgar	Coleman	16	18- 7-46
Brown, John	Canmore	13	18- 7-46
Blasetti, Angelo	Nordegg	17	19- 7-46
Duncan, David R.	Nordegg	18	19- 7-46
Herman, John R.	Mountain Park	19	20- 7-46
Huck, Louis	Blairmore	20	29- 7-46
Harpham, H. A.	Clover Bar	21	9- 9-46
Lonsbury, Wm. P.	Coleman	15	18- 7-46
Marconi, John T.	Coleman	14	18- 7-46
March, John	Edmonton	22	2- 8-46
McDonald, K. L.	Bellevue	23	27- 8-46
Snow, Percy E.	Morley	24	4-12-46

## THIRD CLASS

Akitt, William	Carmangay	40	11- 1-46
Antonenko, A. R.	Mountain Park	47	18- 7-46
Antrobus, Fred	Coleman	71	6- 8-46
Baker, Stanley J.	Mercoal	43	18- 7-46
Campkin, Bruce C.	Lousana	41	14- 3-46
Chiuppi, James	Drumheller	62	24- 7-46
Donaldson, M. W.	Shaughnessy	69	9- 9-46
Evans, Angelo P.	Blairmore	42	18- 7-46
Evans, Joseph H.	Midlandvale	72	15-10-46
Ferguson, Joseph	Cadomin	70	30- 7-46
Gosney, F. W.	Mercoal	58	23- 7-46
Griffiths, Owen	Foothills	73	15-10-46



## List of Names of Holders of Third Class Certificates—Continued

Name	Address	Cert. No.	Date of Issue
Gosney, F. W.	Mercoal (duplicate)	76	22-10-46
Hughes, Wm. A.	Luscar	54	19- 7-46
Haynes, Arthur	Midlandvale	65	26- 7-46
Kinakin, Peter	Coleman	46	18- 7-46
Kovacs, John	Shaughnessy	50	18- 7-46
Krywolt, Edward	Coleman	51	18- 7-46
Kenakin, Peter	Rosedale	63	27- 7-46
Leitch, Andrew S.	Edmonton	57	20- 7-46
Lawrence, Ernest G.	Bellevue	59	23- 7-46
March, John	Edmonton	56	20- 7-46
Morel, Marcel E.	Ghost Pine Creek (duplicate)	78	29-10-46
McQueen, Thomas A.	Mercoal	64	27- 7-46
Olitch, Charles	Bellevue	48	18- 7-46
Panek, Allin F.	Coleman	44	18- 7-46
Paavola, Henry	Canmore	45	18- 7-46
Quaife, Delbert C.	Edmonton	74	15-10-46
Susnar, Alex	Kaydee	52	18- 7-46
Sladek, Henry	Rosedale	53	19- 7-46
Sharretta, John	Blairmore	55	20- 7-46
Sikora, John (Jr.)	Coleman	68	29- 7-46
Timm, Paul	Willow Creek	77	23-10-46
Whitehead, John G.	Drumheller	60	24- 7-46
Walker, William	Newcastle	66	26- 7-46
Wakaruk, George	Newcastle	67	26- 7-46
Worthington, Willard T.	Edmonton	75	22-10-46
Van De Kinder, M. F.	Cambria	61	24- 7-46
Yakiwczuk, John	Shaughnessy	49	18- 7-46

## MINE SURVEYOR

*Crawford, John	Edmonton	4	18- 7-46
Young, David B.	Bellevue	5	24- 9-46

\*Special Surveyor's Examination prepared, supervised and examined by the Central Board of Examiners. See Question papers in appendix.

## MINE ELECTRICIAN—FIRST CLASS

Henderson, John R.	Nacmine (duplicate)	4	6-12-46
Mozell, Wm. J.	Coleman	2	3- 8-46
Murdoch, Stewart	Coleman (duplicate)	3	25-10-46
Ritchie, Chas. O.	Bellevue	1	18- 7-46

## MINE ELECTRICIAN—SECOND CLASS

Farmer, John T.	Edmonton	3	30- 7-46
Gitzel, Edward	Luscar	1	18- 7-46
Galloway, R. C.	Nordegg	4	19- 7-46

## INFORMATION REGARDING INSPECTION DISTRICTS

Chief Inspector of Mines—John Crawford, Provincial Building, Edmonton, Alberta.  
Telephone 22698.

Assistant Chief Inspector of Mines—J. A. Dutton, Provincial Building, Edmonton, Alberta.  
Telephone 22889.

Electrical Inspector of Mines—Burton Tait, Provincial Building, Edmonton, Alberta.  
Telephone 28614.

Inspection District	Area	Area Number	Character of Coal	No. of Mines in operation	Mines opened 1946	Mines re-opened	Mines closed	Mines abandoned during 1946	Name and Address of District Inspector of Mines
Edmonton-Camrose	Ardley	1	Sub-bituminous	9		5	7		A. B. Hunter, Provincial Bldg., Edmonton, Alta., Tel. No. 28612.
	Camrose	5	Sub-bituminous	6		4	2		
	Castor	8	Sub-bituminous	27	3	9	9	4	
	Edmonton	15	Sub-bituminous	16	3	2	1	5	
	Pembina	31	Sub-bituminous	1	1		1		
	Rochester	35	Sub-bituminous	2					
	Tofield	42	Sub-bituminous	5			1		
	Westlock	45	Sub-bituminous	1		1			
Wetaskiwin	46	Sub-bituminous	1	1			1		
Calgary	Big Valley	2	Sub-bituminous	1					W. E. G. Hall, New Court House Building, Calgary, Alta., Tel. No. M842-84.
	Carbon	6	Sub-bituminous	11		2	2	1	
	Cascade	7	Bituminous	2					
	Highwood	19	Bituminous						
	Morley	23	Bituminous	1					
	Nordeg	25	Bituminous	1					
	Pekisko	30	Bituminous	2		1			
	Saunders	36	Bituminous	2					
Edson	Coalspur	11	Bituminous	5					A. Muir, Edson, Alta., Tel. No. 35.
	Mountain Park	24	Bituminous	3	1	1	1	1	
	Prairie Creek	33	Bituminous	1					
Blairmore	Crowsnest	12	Bituminous	7					J. D. B. Brown, Blairmore, Alta., Tel. No. 70.
	Pincher	32	Bituminous	1		1			
Drumheller	Big Valley	2	Sub-Bituminous	1					James Horne, Drumheller, Alta., Tel. No. 413.
	Drumheller	14	Sub-bituminous	22		1	1	1	
	Gleichen	17	Sub-bituminous	5					
	Sheerness	38	Sub-bituminous	7		5	3		
	Carbon	6	Sub-bituminous	1					
Lethbridge	Brooks	3	Sub-bituminous	1					E. H. Morgan, Lethbridge, Alta., Tel. No. 3325.
	Champion	9	Sub-bituminous	3		1			
	Lethbridge	20	Sub-bituminous	5			2	1	
	Milk River	22	Sub-bituminous	2		2	2		
	Pakowki	28	Sub-bituminous	1				1	
	Redcliff	34	Sub-bituminous	1					
	Taber	41	Sub-bituminous	4		1	1	1	
Edmonton	Edmonton	15	Sub-bituminous	8		1			J. A. Dutton, Provincial Bldg., Edmonton, Alta., Tel. No. 22889.
	Halcourt	18	Bituminous	5	2	1			
	High Prairie	48	Sub-bituminous						
	Pembina	31	Sub-bituminous	3	3	1	2	1	
	Whitecourt	47	Sub-bituminous	1		1		1	
	No Area		Bituminous	1		1			
				175	14	41	35	19	

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946

FIRST CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 1.

Marks required 120.  
Time: Three and one-half hours.

Values

THE COAL MINES REGULATION ACT

- |  |    |
|--|----|
| 1. What are the provisions of Section 6 of the above Act, regarding additional powers of Inspectors? ..  | 19 |
| 2. What are the provisions of Section 15 of The Coal Mines Regulation Act, regarding the hours of employment? ..   | 29 |
| 3. What are the requirements of Section 63 of the above Act with reference to shafts, mine equipment and mine outlets? ..  | 23 |
| 4. What are the provisions of Sections 71 and 72 of The Coal Mines Regulation Act regarding buildings required at a mine, and underground latrines? ..                               | 11 |
| 5. What are the requirements of Sections 87, 88 and 89 of the above Act regarding chains, capping of hoisting ropes and examination of ropes? ..                                     | 14 |
| 6. What are the provisions of Section 136 of The Coal Mines Regulation Act with reference to running of man-trips? ..  | 15 |
| 7. What are the provisions of Section 150 of the above Act, regarding the duties of manager and assistant manager? ..  | 29 |
| 8. What are the requirements of Section 166 of the above Act with reference to responsibility of owner, etc., for compliance with the Act and liability for contraventions, etc.? .. | 11 |
| 9. What are the requirements of Explosive Regulation 20 of The Coal Mines Regulation Act, in connection with the driving of rock tunnels? ..   | 24 |
| 10. What does Electrical Regulation (M) under The Coal Mines Regulation Act, state regarding cables other than flexible cables for portable apparatus and signalling wires? ..       | 25 |

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946

FIRST CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 2.

Marks required 120.  
Time: Three and one-half hours.

Values

GASES, SHOT-FIRING AND SAFETY LAMPS

- |  |                      |
|--|----------------------|
| 1. A roadway sample of dust has been handed to you for testing. The sample has been properly sieved and air-dried. You possess a specific gravity flask and you carefully weigh 30 grams of the dust, and in placing it in the specific gravity flask, it is found to have displaced 15 cubic centimeters of alcohol. The coal is known to have a specific gravity of 1.38 and an ash content of 16%. The rockdust used and the ash contained in the coal have a specific gravity of 2.7. Show by calculation whether the roadway is due for re-dusting .. | 24                   |
| 2. Sketch and describe the liquid Carbon Di-oxide cartridge which is used for the purpose of bringing down coal in the mines of this Province ..   | 16                   |
| 3. Shot-firing is adopted on a longwall face 450 feet long, and cut to a depth of 4.5 feet. If the seam is dry and dusty and is liable to give off fire-damp, state fully what precautions you would take to ensure safety ..  | 19                   |
| 4. A power plant may obtain coal from two different collieries and the laid-down cost from one mine is \$4.50 per ton with an analysis of<br>C—73%<br>H— 5%<br>O—12%<br>N— 5%<br>S— 1%   | Ash 6%, Moisture 1½% |

The cost of the second coal is \$3.40 per ton with an analysis of

C—57%  
H 5%  
O—22½%     Ash 10%, Moisture 2.3%  
N—1.7%  
S—1.5%.

- Which is the cheaper coal? ..... 21
5. A small district of a mine is giving off explosive gas in large volume. The quantity of air entering the district is 60,000 cubic feet per minute, and while the velocity has reached the limit for safety, the gas percentage on the return from the working places, exceeds three (3) per cent. Methane. Describe what steps you would take to meet the situation ..... 20
6. During the work of sealing off a district in which spontaneous heating has developed, what tests would you make to ascertain the progress of the heating? What would indicate (a) imminent danger, (b) comparative safety? ..... 20
7. If you were manager at a mine giving off considerable Methane and the coal seam was friable, and the dust from same was highly combustible, the seam being seven to ten feet thick, and pitching from 24° to 30°, what precautions would you take and what regulations would you lay down to guard against the dangers from gas and dust? ..... 22
8. You are appointed manager of a gassy and dusty mine where explosives have been freely used. You wish to reduce this hazard as much as possible, and plenty of power is available. State what steps you would take to reduce the shot-firing to a minimum? ..... 22
9. In a certain mine the quantity of air passing is found to be 119,000 cubic feet per minute, and gas detector readings taken in the return airway show an average of ¼ of 1% Methane, contained in the air. The annual output of coal is 225,000 tons. Find the number of cubic feet of gas given off per ton of coal produced at this mine ..... 19
10. What is the composition by volume of pure air? What are the several causes of the changes in this composition after the air has passed throughout a large mine? What two gases are commonly found in the composition of the return air, and under unusual mine conditions, name several gases that may be found in minute quantities ..... 17

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946

FIRST CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 3.

Marks required 120.  
Time: Three and one-half hours.

Values

VENTILATION

1. In the ventilation of some mines, it has been observed that air is leaking from the "main return airway" into the "main intake airway", although the airways are about 100 feet apart and parallel to each other. This certainly is not a common occurrence. Give a description of the circumstances that would cause this to happen, and give proof by calculation ..... 20
2. Describe in detail how you would proceed with the construction of an overcast to pass 50,000 cubic feet of air per minute. The seam is 6 feet thick with a hard sandstone roof. Itemize the total cost of labour and material. Compressed air is available if power is required. The overcast will be required for 20 years ..... 22
3. Find the rubbing surface of a mine shaft rectangular in form, having a diagonal measurement of 35 feet, an area of 588 sq. feet and 200 fet. in depth. Show clearly the various steps of the calculation ..... 17
4. A ventilating current of air of 150,000 cubic feet per minute saturated with vapour passes down the downcast shaft at a temperature of 32 deg. Fah. When it leaves the upcast its temperature is 75 deg. Fah., and it is still saturated with vapour. Find how much water-vapour this quantity of air has absorbed from the underground workings.  
1 cubic foot of air 32 deg. Fah., contains 2.20 grains.  
1 cubic foot of air 75 deg. Fah., contains 9.41 grains.  
7000 grains—one pound ..... 19

5. What is the volume of a fan whose outer and inner diameters are 24 feet and 12 feet respectively, the width of the fan being 7.5 ft. What is the weight of air revolved in the fan under these conditions? 16
6. (a) Two fans discharging in the same airway and ventilating the same mine when working separately are capable of producing 30,000 cubic feet and 40,000 cubic feet of air respectively. What quantity of air will they produce if both fans are put in operation working together and ventilating this same mine?  
(b) What do you mean by "mechanical efficiency" of a fan and the "manometric efficiency", respectively? 20
7. Explain the method of calculating the natural division of 60,000 cubic feet of air in the following three splits. What is meant by the "natural division of the air" in a mine, and what necessity arises for a different division of the air between the several districts of the mine?  
Split A 6 by 10 feet 4000 ft. long  
Split B 5 by 12 feet 6000 ft. long  
Split C 5 by 8 feet 3500 ft. long 24
8. Two shafts are 500 feet apart and one has reached the seam at a depth of 175 feet, and same is being developed. The seam is 4 ft. thick and lying horizontal. Show how you would set out and ventilate the working places while forming the shaft pillar. Some gas is being given off and the second shaft is only being sunk and all underground development is being carried out from the main shaft 20
9. The quantity of air passing through a semi-circular arched airway is 40,000 cubic feet per minute with a velocity of 320 feet per minute. The radius of the arch is equal to the vertical height of the rectangular portion. Find the dimensions of the roadway 20
10. If 65,000 cubic feet per minute passes through an airway 7 by 7 feet with a water gauge of 1.5 inches, what quantity of air will pass through another airway of the same length, 8 by 8 feet in section, the pressure remaining the same 22

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June 4, 5 and 6, 1946

FIRST CLASS CERTIFICATES

Marks obtainable 200.

Paper No. 4.

Marks required 120.

Time: Three and one-half hours.

Values

PRACTICAL WORK, MINE RESCUE AND FIRST AID

1. What is meant by the term "spontaneous combustion"? Describe the various changes observed in the development of spontaneous combustion in a mine, from the first indication to the ignition stage 16
2. A bituminous seam of coal 25 feet in thickness, pitches 20 degrees for a distance of 200 feet above a gangway, then increases in pitch to 58 degrees for a distance of 400 feet. Sketch and describe how you would work this seam. All coal must be lowered to the gangway 22
3. Calculate the safe working load of a mild steel clevis pin  $1\frac{1}{4}$  inches in diameter, using a factor safety of 6 18
4. Give a summary of the cause of accidents due to falls of roof and sides at the coal face, and state fully the methods you would adopt to reduce them to a minimum 23
5. A large electrically driven hoist is used to convey seven 3 ton cars of coal per trip on a steep slope. Owing to the difficulty in controlling the loaded trip on the slope by hand and foot brakes, in the event of the power failure and other electrical causes, it has been decided to equip the hoist with a brake which will operate automatically in such an emergency. Sketch and describe such a braking device. State where same is placed and how it is operated 16
6. The coal seam 14 feet thick is underlaid by a coal seam 7 feet thick. The strata between the two seams is 120 feet thick. It is proposed for market reasons or requirements, to work both seams at the same time. State fully how you would proceed to work these seams, and the dangers that have to be guarded against in the working of same 24
7. In the course of an investigation after an explosion, how would you proceed to trace the point of origin, the cause, and the extent of the explosion? 20

8. The loaders average daily rate of pay is \$8.00, \$9.00 and \$12.00 in Nos. 1, 2 and 3 districts respectively. In No. 3 district, the number of loaders exceeds that in No. 2 district by 4, while there are twice as many loaders in No. 1 district as there are in the other two combined. Your daily pay-roll cost for all these loaders is \$907.00. Calculate the number of loaders in each of the three districts ..... 18
9. A horizontal seam of coal 10 feet thick, with good roof and floor is being opened up by a pair of shafts 250 ft. deep. It is the intention to fully mechanize the mine for an output of 1000 tons of coal per day. Enumerate the different articles of equipment you would use underground, and sketch and describe a development plan of the mine for this output ..... 25
10. When dealing with coal-dust, what is the effect of wet treatment at the coal face, on susceptible strata? Explain fully ..... 18

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FIRST CLASS CERTIFICATES

Marks obtainable 200.

Marks required 120.

Paper No. 5.

Time: Three and one-half hours.

Values

MACHINERY

1. What are the objects aimed at in applying an over-speed and over-wind preventer, to a winding engine? Describe the construction and action of one type of over-speed and over-wind preventer ..... 18
2. Sketch and describe:
  - (a) a series circuit;
  - (b) a parallel circuit;
  - (c) explain the following electrical terms:
    - (1) "slip" of an induction motor and how it is expressed;
    - (2) "Ratio" of a transformer;
    - (3) "Flameproof" or "Explosion-proof" apparatus. .... 20
3. State fully the advantages of a turbine pump for general use in mines, and the care that should be taken of same ..... 20
4. A large quantity of waste material has to be conveyed from the mine daily to a convenient dumping point about 2500 feet from the mine. The ground between the two points is undulating and broken. Describe what method you would adopt for the economical conveying and dumping of this waste material ..... 22
5. Give a description of conveyors for underground work:
  - (a) for level roads;
  - (b) for pitch against the load 15 degrees;
  - (c) for pitch with the load 10 degrees.
 What would be the maximum length of each type of conveyor and how much coal would you expect to be conveyed per hour? . . . . . 24
6. What are your views with reference to:
  - (a) haulage by trolley locomotive,
  - (b) haulage by storage battery locomotive,
  - (c) haulage by Diesel locomotive?
 Discuss fully ..... 22
7. We have two steam hoisting engines, they are alike in every respect and identically the same size, excepting that one of them is supplied with full steam pressure throughout the whole length of its stroke, and exhausts directly into the outer atmosphere, while the other receives full steam pressure for only half the length of its stroke and it exhausts into an efficient condenser. The gauge steam pressure in both cases is 80 lbs. Show by calculation the relative strength of these two engines, and make some relative comments ..... 21
8. During a run of 20 minutes, the air pressure in a locomotive tank of 100 cubic ft. capacity is reduced from 800 to 100 lbs. per sq. inch. What must be the capacity of a compressor to furnish a pressure of 800 lbs. in 20 minutes? . 16
9. A seam of coal six feet in thickness is being developed on the prairie, through shafts 160 feet in depth. Choose your own capacity of mine car, and type of cage and calculate the horse-power of hoisting engine you would install to handle an output of 800 tons in eight hours ..... 21

10. The grade of an incline is  $3\frac{3}{4}$  degrees, the length of the road is 2000 feet, the weight of the rope is 4000 lbs., the weight of a loaded car is 4000 lbs., and that of an empty car is 1700 lbs. How many cars must there be in a trip for this incline to be self-acting, assuming friction= $1/40$  . 16

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FIRST CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 6.

Marks required 120.  
Time: Three and one-half hours.  
Values

SURVEYING, LEVELLING AND GEOLOGY

1. The following notes were taken from an underground survey:

Station	Bearing	Slope distance feet	Horizontal distance in feet	Vertical angle
1—2	N 89°00'E	600		+ 6°
2—3	S 10°00'E	450		—30°
3—4	S 1°00'W		550	0°00
4—5	N 80°00'W		355	0°00

It is proposed to drive an incline from Station 5 to a point mid-way between Stations 1 and 2. Draw a plant of the survey by latitudes and departures to a scale of 100 feet to 1 inch and calculate the bearing and length of the proposed incline . . . . . 50

2. The following staff or levelling rod readings were taken with an Engineer's Wye. The staff was held at the starting point Station A, and then successively at 100 ft. intervals therefrom, 4.90; 9.90; 9.35; 14.60. The instrument was then moved to another point and further readings were taken as follows: 2.80; 2.30; 8.85; 13.10. The last reading given was on Station B. The elevation of Station A is 1000 feet above datum. Show how you would book the level notes and work out the elevations for each Station. Plot a profile from Station A to Station B on a scale of 100 feet to 1 inch for horizontals, and 10 feet to 1 inch for verticals . . . . . 40
3. Calculate the tonnage of coal in a pitching seam whose vertical height is 7.075 feet over an area of 1000 feet along the strike and 500 feet along the dip, measured horizontally; the specific gravity of the coal is 1.32 . 26
4. A mine in a pitching seam is worked on the angle system. Rooms are driven on a pitch of 30° in a N 30°00'E direction, and cross cuts are driven at right angles to the rooms, towards the West, on a 30° pitch. What is the direction and degree of the full dip . . . . . 24
5. Make a neat sketch of an Amsler Planimeter and describe how you would use it to determine areas from a plan or map . . . . . 23
6. (a) Give a summary of the suggested reasons for the different varieties of coal, and (b) proofs that coal is derived from plants . . . . . 25
7. A plan as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act, must be handed in to the presiding examiners with the answers to this paper . . . . . 6
8. A profile of an underground levelling as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act, must be handed in to the presiding examiners with the answers to this paper . . . . . 6

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946  
SECOND CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 1.

Marks required 100.  
Time: Three and one-half hours.  
Values

THE COAL MINES REGULATION ACT

1. What are the provisions of Section 23 of The Coal Mines Regulation Act with regard to agreement as to deductions in respect of stone, etc., and method of determining deductions where agreement silent? . . . . . 26

2. What are the provisions of Section 82 of the above Act with reference to entrances to unused places underground to be fenced, apparatus for raising and lowering persons and regarding ladders? ..... 12
3. What are the provisions of Sections 87, 88 and 89 of the Act regarding chains, ropes and the examination of same? ..... 22
4. What are the requirements of Sections 110, 111 and 112 of The Coal Mines Regulation Act regarding mode of air circulation, ventilation in worked out or abandoned parts of a mine, and powers of Chief Inspector where dangerous conditions as to dust, etc., are found to exist? ..... 20
5. What are the requirements of Section 123 of the above Act regarding inspection before each shift commences work, inspection during shifts, barometer and thermometer readings and gas detector readings to be taken daily? ..... 28
6. What are the provisions of Section 132 of the Act, regarding precautions to be taken in approaching dangerous accumulation of water or gas? ..... 12
7. What are the provisions of Section 136 of the Act, with reference to the running of man-trips? ..... 22
8. What are the requirements of Section 140 of The Coal Mines Regulation Act with reference to size of main conveyor roads, travelling on same, escape roads and signal equipment when certain conveyors are used? ..... 12
9. What are the provisions of Section 151 of the above Act, with reference to the duties of the overman? ..... 32
10. What are the requirements of Regulation 21 (of the Regulations covering care and use of explosives pursuant to Section 175 of The Coal Mines Regulation Act) regarding the conditions under which the use of Cardox may be permitted for the breaking down of coal in Alberta mines?..... 14

GOVERNMENT OF THE PROVINCE OF ALBERTA  
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SECOND CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 2.

Marks required 100.  
Time: Three and one-half hours.  
Values

VENTILATION, GASES, SHOT-FIRING AND SAFETY LAMPS

1. It is known that there are 300,000 cubic feet of CH<sub>4</sub> gas standing in the old workings adjoining a return airway. There is passing in this return airway, 80,000 cubic feet of air per minute, with a gas content of .75 of 1%. During a period of 1 hour the barometer drops from 26" to 25". What would be the average percentage of gas in the return airway during this one hour?.... 20
2. The gas content of the air in the mine has been increasing daily for some time. It is decided to increase the air in circulation by 20%. The present horse-power applied to the fan shaft is 40. Calculate the new horse-power applied to the fan ..... 18
3. An airway 7 ft. by 10 ft. in section, is passing 35,000 cubic feet of air per minute and it is desired to reduce the quantity to 21,000 cubic feet by means of a regulator. If the water-gauge reading on the regulator is  $\frac{3}{4}$  of an inch, what must be the area of the regulator? ..... 20
4. If a fan running at 140 revolutions per minute, produces 70,000 cubic feet of air per minute, what would be the volume of air produced if the speed of the fan was increased to 200 revolutions per minute, all the conditions remaining the same? ..... 17
5. How would you ventilate a crosscut measure drift, in a mine giving off gas but not in very large quantities, which has to be driven 500 yards in advance of the workings? Describe the plant and arrangements. Would a similar plant and arrangement be suitable for ventilating a single heading 600 feet long in the coal seam itself, if the coal seam is subject to very heavy gas feeders? If not, why not? ..... 22
6. A fan is being driven by a direct current motor, the voltage being 440 at the motor, taking 46 amps. The fan is delivering air at a velocity of 800 ft. per minute through an airway 10 ft. by 3 ft. against a water-gauge of 2.5 inches. What is the combined efficiency of the fan and motor?..... 20
7. To find the percentage of gas given off in a mine, the air at the inlet was measured and found to be 137,500 cubic feet per minute at a temperature of 61 degrees Fah. At the outlet the air measures 150,000 cubic feet at a temperature of 75 degrees Fah. What is the percentage of mine gases present in the air leaving the mine? ..... 21



8. Explain whether or not the surrounding underground conditions in connection with shot-firing in mines of the bituminous coal field in this Province are more dangerous in winter months than in spring and summer months. What is a "Permitted Explosive" and under what circumstances, when being used, does it become unsafe? 22
9. As overman of a large mine you find that the fan is capable of supplying the amount of air required, and is also discharging its rated amount of air, but the workings of the mine are poorly ventilated. Describe several causes that may account for this condition, and state what you would do to remedy these defects. What are the results of a very poorly ventilated mine? 22
10. Oral Examination 20

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946

SECOND CLASS CERTIFICATES

Marks obtainable 200.

Paper No. 3.

Marks required 100.

Time: Three and one-half hours.

Values

PRACTICAL WORK

1. A seam of coal is five feet thick, overlaid with 15 inches of soapstone. Above the soapstone is a fairly good shaly roof. The floor while fairly hard, on becoming wet gets very soft and does considerable heaving. The coal seam itself is very hard and very little scaling takes place from the ribs. Describe fully what method of timbering you would adopt to meet these conditions 20
2. Show by suitable sketches, the layout of a longwall face in a seam (flat) overlaid by a heavy short roof. The coal seam itself being interstratified by impurities. Due regard should be given to the type of machine, position and type of conveyors; roof supports and ventilation, together with the general safety of the workmen 24
3. How would you distinguish between a rupture of an artery and a vein, where the victim is bleeding profusely? What steps would you take to protect the life of the victim? 18
4. Explain fully why it is necessary to periodically anneal cage chains and detaching hooks. How often should this be done, and what record should be kept? 22
5. It has been decided to build an air-tight stopping on the intake side of an airway where a fire has been burning for five days. The return side of the airway has already been blocked off. What precautions would you take when building this stopping? There is no one working in the mine 20
6. Due to an ever increasing demand for coal, it has become necessary to increase the number of cars in each trip from 20 to 29. A  $\frac{5}{8}$  inch rope has given perfect satisfaction, therefore it has been decided to use the same class of rope in the future. Show by calculation the size of the new rope that will give the same satisfaction in the running of 29 car trips 22
8. How much work is done in raising 300 tons of coal up an incline 2700 feet long and raising 1 foot in 3, adding 40 per cent. to the load for friction? 18
8. Find the safe working load on a mild steel drawbar 3" wide by  $\frac{3}{4}$ " thick, assuming breaking strength of the steel is 55,000 pounds per square inch and using a factor of safety of 6 20
9. If 16 miners load 100 tons of coal in 8 hours, how long will it take 30 miners working at the same rate to load 500 tons? 16
10. Oral Examination 20

## THE MINES BRANCH

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 4, 5 and 6, 1946

## SECOND CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 4.

Marks required 100.  
Time: Two hours.  
Values

## MACHINERY

1. Compressed air is used in a mine for pumping. The vertical displacement of the water is 200 feet, and the compressed air pressure is sometimes as low as 60 lbs. The pump used is of the plunger type and the diameter of the plunger is 5 inches. What is the smallest diameter compressed air piston that would allow the pump to function at all times? Ignore friction ..... 30
2. A fan pulley is 30 inches in diameter, and the fan has a velocity of 228 revolutions per minute. The motor driving the fan has a pulley 12 inches in diameter, the pulleys having a velocity of 600 revs. per minute. The power from motor pulley is transferred to fan pulley by belt. Show by calculation to what extent the belt is slipping ..... 30
3. The chain of a coal-cutting machine has a cutting speed of 350 feet per minute with an 800 lb. load on the cutting tool. What amperage or current will a D.C. motor take with a pressure or voltage of 220 at the machine, the combined efficiency over all being 65% ..... 30
4. A pair of hoisting engines have cylinders 30 inches in diameter and stroke 60 inches. If steam pressure is 90 lbs., how many revolutions will be required to develop 1000 H.P.? ..... 30
5. What are the causes of corrosion in steel wire ropes? How would you guard against corrosion taking place in these ropes? What size of a best plough steel rope would you use on a single track slope 12,000 ft. in length pitching 19 degrees hoisting 4 cars per trip, gross load of each car being 4 tons? ..... 34
6. What is the breaking strain and safe working load for a good steel hoisting rope 1 and  $\frac{3}{8}$  inch in diameter? ..... 26
7. Oral Examination ..... 20

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
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## SECOND CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 5.

Marks required 100.  
Time: One and one-half hours.  
Values

## SURVEYING, LEVELLING AND GEOLOGY

1. Plot by protractor the following survey on a scale of 100 feet to 1 inch, and find the distance and bearing of the closing line:
 

Station	Bearing	Distance
A-B	N. 40°30' W.	185 feet
B-C	S. 53°00' W.	235 feet
C-D	S. 4°30' E.	260 feet
D-E	S. 65°15' E.	210 feet
E-F	N. 58°00' E.	155 feet

 ..... 40
2. An entry is driven S. 60° E., the rooms are driven N. 85° E., the width of the room pillars is 30 feet. The width of the room is 30 feet. Find the distance on the entry from centre of room to centre of room ..... 25
3. Describe clearly how you would determine the specific gravity of a piece of coal. From the S.G. obtained in your example, what would be the weight of coal in a pillar 60 ft. by 55 ft. with coal 8 feet thick? ..... 30
4. Work out the following level notes and plot profile on a scale of 1 inch equals 100 ft. horizontally and 1 inch equals 5 ft. vertically.
 

Line 1-2 rising 1 in 10	distance 60 feet
2-3 rising 1 in 20	" 160 feet
3-4 dipping 1 in 12	" 96 feet
4-5 rising 1 in 30	" 90 feet
5-6 level	" 94 feet
6-7 dipping 1 in 40	" 120 feet

 State average grade line ..... 35

- |  |    |
|--|----|
| 5. A plumb line suspended from the head of a 12 ft. prop set perpendicularly to roof and floor, hangs four feet away from the foot of the prop. What is the dip of the seam? ..... | 20 |
| 6. What is meant in geology by the terms "bed", "seam", "vein" and "dike"? ..  | 30 |
| 7. Oral Examination .....  | 20 |

## GOVERNMENT OF THE PROVINCE OF ALBERTA

## MINES BRANCH

## EXAMINATIONS UNDER THE COAL MINES REGULATION ACT

May 28, 1946

## THIRD CLASS CERTIFICATES

Marks obtainable 200.

Marks required 100.

Paper No. 1.

Time: One and one-half hours.

Values

## THE COAL MINES REGULATION ACT

- |   |    |
|---|----|
| 1. What are the requirements of Section 125 with reference to inspection before each shift commences work, and inspection during shifts, in mines where inflammable gas has not been found? ..... | 24 |
| 2. What are the requirements of Section 61 regarding appointment of examiners, their duties and qualifications? .....   | 28 |
| 3. What are the interpretations of Section 3 regarding:   |    |
| (a) adequate ventilation;   |    |
| (b) examiner;   |    |
| (c) shot-lighter;   |    |
| (d) workman? .....  | 28 |
| 4. What are the requirements of Section 149, Rule 19, regarding safety lamps, their use and care? .....   | 22 |
| 5. What are the requirements of Section 3 of the Regulations Made Pursuant to The Coal Mines Regulation Act, regarding stoppage of ventilating fans? ..   | 16 |
| 6. When is a coal face considered prepared for shot-firing? (Paragraph 10 of Care and Use of Explosives.) .....   | 15 |
| 7. What are the requirements of Section 114 regarding attendant and place of refuge at main doors? .....  | 20 |
| 8. What are the requirements of Section 145 regarding explosives and shot-firing? .....   | 27 |
| 9. Oral Examination .....   | 20 |

## GOVERNMENT OF THE PROVINCE OF ALBERTA

## MINES BRANCH

## EXAMINATIONS UNDER THE COAL MINES REGULATION ACT

May 28, 1946

## THIRD CLASS CERTIFICATES

Marks obtainable 200.

Marks required 100.

Paper No. 2.

Time: Two hours.

Values

## MINE GASES, SHOT-FIRING, EXPLOSIVES AND SAFETY LAMPS

- |  |    |
|--|----|
| 1. What is meant by the term "permissible explosives"? Why are permissible explosives safer to use in gaseous mines than Pellet powder and dynamite? ..  | 26 |
| 2. Describe the construction of low tension electric detonators. Why are No. 8 detonators superior to No. 6 detonators? .....  | 22 |
| 3. When preparing a shot made up of 4 cartridges, state where the detonator should be placed to secure the best results. Give reasons for your answer.....   | 18 |
| 4. What tests should be made to safety lamps as defined under The Coal Mines Regulation Act before they are taken into the mine? .....   | 20 |
| 5. Describe how you would make a test for CH <sub>4</sub> with the Burrell Gas Indicator..   | 28 |
| 6. Name the various gases generally found in a mine, and state how same are given off and the manner in which they are detected .....  | 28 |
| 7. In a return airway there is 80,000 cubic feet of air flowing per minute when a sudden outburst liberates 250 cubic feet of pure gas per minute. What would be the percentage of gas in the airway?..... | 18 |
| 8. Name the gas detectors which have been approved for use in mines in this Province .....   | 20 |
| 9. Oral Examination .....  | 20 |

## THE MINES BRANCH

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946

## THIRD CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 3.

Marks required 100.  
Time: Three and one-half hours.

Values

## VENTILATION

1. Before commencing your inspection you notice a sudden change of ventilating pressure as shown on the fan chart. State the condition you would look for underground, effecting this change of pressure ..... 26
2. In a seam pitching 30°, an outburst of gas occurred in a room 35 ft. wide and 12 ft. high, at a point 50 feet beyond the last crosscut, where a good supply of air is passing. State how you would remove the gas with brattice cloth, and the precaution you would take while doing so ..... 24
3. Find the quantity of air passing through an airway 8 feet in height having a cross-sectional area of 83 square feet, and 5000 feet in length, if the velocity of the air passing is 572 feet per minute ..... 18
4. Two districts in a mine are each supplied with fresh air from the main airways, and it has been found necessary to increase the quantity of air in only one of these districts. State the different ways in which this may be accomplished ..... 22
5. What are the following instruments used for at a mine: Barometer, thermometer, water-gauge, anemometer and hygrometer? ..... 24
6. What is an overcast, and what useful purposes does it serve in a mine? ..... 28
7. Which airway of a mine should have the larger cross-sectional area, the intake or return? Give reasons for your answer ..... 22
8. Sketch and describe how you would build a permanent stopping between the intake and return airways of a mine. State the material you would use for this work ..... 16
9. Oral Examination ..... 20

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946

## THIRD CLASS CERTIFICATES

Marks obtainable 200.  
Paper No. 4.

Marks required 100.  
Time: Two hours.

Values

## PRACTICAL WORK

1. You are required by the management to make an inspection of the mine before the commencement of work at 8:00 a.m. State fully how you would make this inspection, and what observations and tests you would make ..... 28
2. What instructions would you give your coal cutting machinemen to avoid accidents while undercutting? ..... 24
3. If 8 loaders can clean up a longwall face 200 ft. long in 6 hours and 30 minutes, how long would it take 7 loaders to clean up a face 210 feet long? .... 20
4. What types of conveyors are commonly used underground? What conditions would make the use of conveyors preferable to other forms of transportation? 18
5. What would be your procedure if a miner in a district under your charge sustained a fractured leg, from a fall of roof? ..... 26
6. What precautions would you take to prevent accidents while approaching a fault? ..... 20
7. Illustrate how you would fore-pole through loose ground ..... 24
8. State how you would remove the roof supports with maximum safety, in longwall or pillar gobs ..... 20
9. Oral Examination ..... 20

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 6, 1946

MINE SURVEYORS' CERTIFICATES

Marks obtainable 200.  
Paper No. 1.

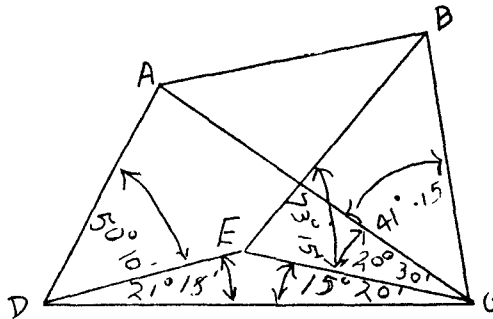
Marks required 120.  
Time: Three and one-half hours.

Values

SURVEYING

1. A surface triangulation has been made to determine the location of the entrance to a mine. Horizontal angles were read at points C, D and E, as shown in sketch. E is at mine entrance and the Latitude and Departure of the points A and B are as follows:

Station	Latitude	Departure
A	+2000.00'	-500.00'
B	+2100.00'	+721.00'



Not to scale.

Calculate the Latitude and Departure of the point E ..... 50

2. LM and NO are straight portions of two converging railways which are to be connected by a curve of 1500 feet radius. The point of intersection of LM and NO produced is inaccessible. X and Y are points on LM and NO respectively connected by a traverse, the notes of which are as follows:

Station	Bearing	Length in feet
LX	N 0°00'	.....
X-1	N 80°10' E	160
1-2	N 69°10' E	240
2-3	S 80°20' E	300
3-Y	N 0°20' W	180
YN	N 88°20' E	.....

Calculate the intersection angle of LM and NO produced, and the position of the start and finish of the connecting curve in relation to X and Y respectively ..... 45

3. The worked out partial Latitudes and Departures of a traverse are as follows:

Station	Latitude	Departure
1-2	+169.40'	-319.83'
2-3	+188.98'	-394.73'
3-4	+698.67'	+441.32'
4-5	+323.68'	+235.10'
5-6	-187.46'	+255.20'
6-7	-302.97'	-18.20'
7-8	-79.50'	+226.48'
8-1	-810.90'	-425.43'

Balance the error in Latitude and Departure and calculate the area of enclosure of the survey. Describe another method than the one you have used, which may be used for a check ..... 30

4. A coal mine with a seam pitching at 30° is being operated on a lease on a royalty basis of \$20.00 per inch of coal per acre of land, per year worked. Four districts are worked and measurements taken at the end of a year's operation are as follows:

District	Area reduced to horizontal measurements. Acres extracted	Average thickness of seam in district, measured at right angles to the seam
No. 1 NE	8.00	6 feet
No. 2 NE	10.00	9 feet
No. 1 NW	12.00	8 feet
No. 2 NW	3.00	5 feet

Calculate the average thickness of coal over the entire area, the royalty and the tonnage for the year. The specific gravity of the coal being 1.35 ..... 35

5. What are the responsibilities of a mine surveyor under The Coal Mines Regulation Act? ..... 15

6. Oral Examination ..... 20

7. A plan as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act must be handed in to the presiding examiners with the answers to this paper ..... 5

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
June 6, 1946

MINE SURVEYORS' CERTIFICATES

Marks obtainable 200.

Marks required 120.

Paper No. 2.

Time: Three and one-half hours.

Values

LEVELLING AND GEOLOGY

1. The co-ordinates in feet of two survey stations A and B at the entrances of two drifts, together with their elevations above datum, are as follows:

Station	Latitude	Departure	Elevation
A	+ 623.87	+ 336.6'	500'
B	+ 1,389.3'	-739.3'	1,072'

The notes of a survey made in one of the drifts from Station B are as follows:

Station	Slope distance	Bearing	Vertical angle
B-1	1716'	S 42°42' E	-19°00'
1-2	170'	N 86°10' E	+ 5°00'
2-3	645'	S 33°50' E	+ 5°30'

From Station A, a cross-measure drift having a bearing of S 42°45' E and rising at a gradient of 1 in 12, has been driven a distance of 1200' to a point C. It has been decided to connect the drift AC with Station 3 in the other drift B3 by means of a cross-measure drift. Calculate the distance from C at which the cross-measure drift should be set away to reach Station 3 in the shortest possible distance, also the bearing, length and gradient of the connecting cross-measure drift ..... 50

2. A site has been chosen at a colliery plant to excavate the earth for a reservoir. Four corners have been staked on the surface in the form of a rectangle and levels run to determine the elevations of surface at stakes, the notes from which are as follows:

Station	B.S.	I.S.	H.I.	F.S.	Elevation
B.M.	1.00				2,059'
NW corner		10.00			
NE corner		0.00			
SW corner		13.00			
SE corner				3.00	

The horizontal distances between stakes at surface are West to East 200 feet, and North to South 150 feet. The elevation of the bottom of the reservoir will be 8 feet lower than the surface at the NW corner stake, and the sides of the reservoir will have a slope of 1½ to 1. The slope of surface is even. Calculate the volume of material to be excavated ..... 45

3. Show by diagram how you would arrive at an equation of the basic relation between the angle of true dip, the horizontal angle between the true dip and any apparent dip and the angle of apparent dip. What would be the bearing of a slope driven down in a south-east direction on a 30° pitch, in a seam dipping 61°18' towards the South, the strike of the seam has a bearing of N 45°52' W. .... 30

4. Describe by sketch, a Bureau of Mines volumeter. It is required that the drawing be neat but need not be to scale. Mark on your sketch the general dimensions. Explain how you would use it to determine the amount of in-combustible matter in a dust sample taken from a roadway in a coal mine, in compliance with the Regulations for rock-dusting ..... 25
5. What are contours? Describe their certain fixed characteristics. What useful purpose do they serve in connection with a mine plan? Explain how a contour map may be made by means of stadia work using a transit, or the method known as "spot shots" ..... 25
6. Oral Examination ..... 20
7. A profile of an underground levelling as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act, must be handed into the presiding examiners with the answers to this paper ..... 5

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH

SPECIAL EXAMINATION FOR MINE SURVEYOR'S CERTIFICATE

Authorized by Central Board of Examiners

July 10, 1945

Marks obtainable 200.

Marks required 120.

Paper No. 1.

Time: Three and one-half hours.

Values

SURVEYING

1. Find the bearing and length which have been omitted from the following tabulated notes:
 

Side	Bearing	Length
AB	30 deg. 12 min.	150
BC	102 deg. 42 min.	286
CD	174 deg. 34 min.	102
DE	225 deg. 15 min.	?
EA	?	340

55
2. Explain the difference between (a) rhombus and rhomboid; (b) trapezium and trapezoid; (c) rectangle, parallelogram and quadrilateral ..... 25
3. A shaft is sunk 20 feet in diameter and 200 yards deep, the volume of material is increased by 30 per cent after excavation, as compared with the original solid contents. The debris are piled up in the form of a square pyramid, the sides of which are inclined 40 deg. to the horizontals. Calculate the area of the base of the pyramid ..... 40
4. Determine by an application of Euc. 1.32 (Cor.): whether the following is in reality a "tied-in" survey, in so far as angular measurements are concerned:
 

AB	S 25 deg. E	229 links
BC	S 23 deg. E	209 links
CD	N 29¾ deg. E	96 links
DE	N 88¼ deg. E	149 links
EF	N 24 deg. W	428 links
FG	S 81¾ deg. W	102 links
GA	S 53¾ deg. W	117 links

25
5. In connecting surface and underground surveys, how may the co-relation be affected using but one shaft, and one plumb line in that shaft? Having two shafts, with one plumb line in the centre of each, how would the connection be made? In the case of a single shaft, in which two plumb lines are suspended, outline briefly three methods whereby the connection may be established ..... 30
6. Oral Examination ..... 20
7. A plan as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act must be handed to the Presiding Examiners with the answers to this paper ..... 5

## THE MINES BRANCH

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH

## SPECIAL EXAMINATION FOR MINE SURVEYOR'S CERTIFICATE

Authorized by Central Board of Examiners

July 10, 1945

Marks obtainable 200.

Paper No. 2.

Marks required 120.

Time: Three and one-half hours.

Values

## LEVELLING AND GEOLOGY

1. Work out the following level notes and make a profile from them on the following scales; horizontal 100 feet to the inch, vertical 5 feet to the inch:

Station	Total Dist.	B.S.	I.S.	F.S.	H.I.	Red. Levels
1 .....	0.0	7.06				100.00
2 .....	65.0		5.80			
3 .....	109.0		5.22			
4 .....	173.0		6.43			
5 .....	256.0		0.80			
6 .....	339.0	6.70		1.14		
7 .....	400.0		8.42			
8 .....	468.0		2.45			
9 .....	540.0	5.94		1.10		
10 .....	600.0			2.20		

2. What do you understand is the meaning of the following terms: (a) geometrical levelling; (b) trigonometrical levelling? Also define (1) Differential Levelling, (2) Section Levelling, and (3) Contour Levelling, giving a brief description of the methods involved in each of the last three ..... 25
3. Three boreholes A, B and C intersect a seam of coal at depths of 180, 208 and 330 yards respectively. A is 600 yards North of C, and 800 yards East of B and B is 1000 yards distant from C. Determine the direction and amount of full dip ..... 35
4. Compare the Y and dumpy levels; state which you would prefer for mine work and why. What are the four adjustments of a dumpy level, and which are the most important? ..... 30
5. Discuss briefly Clastic rocks and Crystalline rocks, describing how each of these classes have been formed, and the comparative structures as we now find them ..... 30
6. State the requirements of The Coal Mines Regulation Act and Regulations in regard to plans of abandoned mines ..... 20
7. Oral Examination ..... 20
8. A profile of an underground levelling as required by Rule 7 of the Rules Governing Examinations under The Coal Mines Regulation Act must be handed in to the presiding examiners with the answers to this paper ..... 5

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH

## EXAMINATIONS UNDER THE COAL MINES REGULATION ACT

May 28, 1946

## MINE ELECTRICIANS' CERTIFICATES (FIRST CLASS)

Marks obtainable 200.

Paper No. 1.

Marks required 120.

Time: Two hours.

Values

## THE COAL MINES REGULATION ACT

1. What are the requirements of Section 50 of The Coal Mines Regulation Act regarding the appointment of a mine electrician? ..... 60
2. What are the requirements of sub-section "K" of the Electrical Regulations under the above Act, with reference to switchgear installations? ..... 50
3. What are the requirements of sub-section "N" of the Electrical Regulations under the above Act with reference to Flexible cables? ..... 30
4. What are the requirements of sub-section "Q" of the Electrical Regulations regarding shot-firing? ..... 20
5. What are the requirements of sub-section "T" of the Electrical Regulations with reference to locomotive haulage? ..... 20
6. What are the requirements of sub-section "J" of the Electrical Regulations with reference to the transformation of pressure? ..... 20



GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH

EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946

MINE ELECTRICIANS' CERTIFICATES (FIRST CLASS)

Marks obtainable 200.  
Paper No. 2.

Marks required 120.  
Time: One and one-half hours.  
Values

THEORY

1. A three phase motor operating at 2200 volts draws 45 amperes. the power factor is 80%. What is the horse-power of the motor? 30
2. What size of rubber covered conductors, in circular mils, should be used to transmit 25 horse-power at 220 volts on a 3 phase, 3 wire line 1000 feet long, with a 10 per cent. drop and a power factor of 80 per cent.? Show how you arrive at your answer 40
3. A lighting circuit is supplied with 120 volts. There are 12 lamps in parallel, the resistance of each lamp is 144 ohms. What current will the circuit take? 30
4. What size motor pulley would you use on a motor with a full load speed of 1200 R.P.M. to drive a machine at 900 R.P.M.; diameter of pulley on machine is 12 inches 30
5. A bank of 3 transformers, rated 2200 to 220 volts, is connected Delta on the primary side, and supplied with 2200 volts. What would be the secondary voltage if the secondaries are connected Star 40
6. What would be the synchronous speed of an 8 pole, 60 cycle, 3 phase motor? 30

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH

EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946

MINE ELECTRICIANS' CERTIFICATES (FIRST CLASS)

Marks obtainable 200.  
Paper No. 3.

Marks required 100.  
Time: Three and one-half hours.  
Values

PRACTICAL WORK

1. Explain, using a sketch, how you would phase out and parallel, 2 three phase, 440 volt lines 15
2. Name seven (7) direct current motor troubles which could cause excessive sparking at the brushes 20
3. A motor-generator set is installed in the mine for charging locomotive batteries. If the polarity of the D.C. generator became reversed, how would you change it back to its original polarity? Name two ways in which this could be done 20
4. How would you test the insulation value of:
  - (a) A lead covered, steel wire armoured, three conductor cable which is to be used on 2300 volts;
  - (b) A coal cutting machine trailing cable;
  - (c) What minimum insulation value would you consider satisfactory on (a) and (b) 20
5. A three phase motor with a magnetic line starter is controlled from four (4) remote control stations with Start-Stop buttons. Make a sketch of the wiring to the remote control stations 20
6. What is meant by a Star-Delta starter? Describe its duty and how it is connected to the motor for starting 20
7. If storage batteries are to be laid up for a considerable time, what precautions would you take for: (a) Edison cells; (b) Lead cells 20
8. Explain how you would install a 2300 volt motor in a building above ground. Start at the line outside and explain what kind of wiring and what apparatus you would use 20
9. In inspecting Permissible electrical mining equipment, name six (6) points you would check on 20
10. Direct current motors may be Series, Shunt or Compound wound. Explain these terms and state why the various types of windings are adopted 25

## THE MINES BRANCH

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946

## MINE ELECTRICIANS' CERTIFICATES (SECOND CLASS)

Marks obtainable 200.  
Paper No. 1.

Marks required 100.  
Time: Three and one-half hours.  
Values

## THE COAL MINES REGULATION ACT

1. What are the provisions of The Coal Mines Regulation Act, Section 50, regarding when a mine electrician must be appointed, certificate required, offences and certain exceptions? ..... 50
2. Explain the following electrical terms:
  - (1) high pressure;
  - (2) concentric system;
  - (3) open sparking;
  - (4) electrician;
  - (5) earthed. .... 22
3. What do the Electrical Regulations under The Coal Mines Regulation Act state regarding annual returns and plans? ..... 18
4. What are the requirements of Electrical Regulations (f) under the above Act in connection with danger or mechanical damage to apparatus? .... 22
5. State the requirements of Electrical Regulation (k) under the above Act with reference to switchgear, etc. .... 22
6. What are the requirements of Electrical Regulation (o), paragraph 8, of The Coal Mines Regulation Act regarding examination of flexible cables, etc.?..... 18
7. What are the requirements of Electrical Regulation (q) of the above Act regarding shot-firing and shot-firing cable? ..... 10
8. What are the requirements of Electrical Regulation (p) of the above Act re signalling and precautions to be taken? ..... 10
9. What are the requirements of Electrical Regulation (s) of the above Act in connection with re-lighting apparatus? ..... 20
10. What does Electrical Regulation (t) state in connection with haulage by electric locomotives? ..... 8

GOVERNMENT OF THE PROVINCE OF ALBERTA  
MINES BRANCH  
EXAMINATIONS UNDER THE COAL MINES REGULATION ACT  
May 28, 1946  
MINE ELECTRICIANS' CERTIFICATES (SECOND CLASS)

Paper No. 2. Marks required 100.  
Time: One and one-half hours.  
Values

## THEORY AND PRACTICAL WORK

1. Sketch and describe:
  - (a) a series circuit;
  - (b) a partial circuit ..... 20
2. What would be the minimum current carrying capacity of the common feeder for three motors whose full load currents are 25, 90 and 160 amperes respectively? ..... 20
3. What size of switch and fuses should be used ahead of an autotransformer starter, when installing a 25 H.P. 440 volt three phase motor; and what size of conductors and conduit should be used? ..... 25
4. How would you test a ground electrode to which the frames of electrical apparatus are grounded, and what resistance, in ohms, would be considered satisfactory? ..... 20
5. An electric bell has a resistance of 400 ohms and will not ring with a current of less than .025 amperes. What is the smallest voltage that will ring the bell? ..... 15
6. In inspecting permissible mining equipment, name six (6) points you would check on ..... 20
7. Define the following:
  - (a) Autotransformer starter frequently called a compensator;
  - (b) Magnetic contactor ..... 20
8. Describe a safe signalling system to be used in a gassy and dusty mine ..... 20
9. Name three main hazards in connection with the use of electricity in coal mines, and state what precautions should be taken to eliminate or at least minimize each hazard ..... 20
10. Explain how you would test to find out if one line of a three phase underground system was grounded ..... 20

## ANNUAL REPORT, 1946

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LIST OF TRADE NAMES UNDER WHICH COAL IS SOLD, FROM MINES  
OPERATING AS AT DECEMBER 31, 1946

Mine No.	Name of Operator	Trade Name	Address
<b>Ardley Area:</b>			
809	J. W. Sissons	Pearl of Furnace Coal	Alix
969	James Blades	Great Bend Coal	Delburne
1018	Arne Anderson	Dixie Coal	Ardley
1135	B. C. Kurp	Kurp's Coal	Delburne
1322	John Lynass	Glenniffer Coal	Delburne
1488	Chas. O. Russell	Eclipse Coal	Alix
1586	Kehl & McGladrie	Valley Coal	Nevils
1605	Meyers & Munro	Shurheat Coal	Ardley
1613	Wm. Barrell	B. and A. Coal	Ardley
<b>Big Valley Area</b>			
864	Big Valley Coal Company	Quality Coal	Big Valley
1254	Robert Campkin	Thompson Coal	Lousana
<b>Brooks Area</b>			
1404	Birnwel Coal Limited	Birnwell Coal	Eyremore
<b>Camrose Area</b>			
241	Joe Proskow	Proskow Coal	Dinant
610	L. Strilczyk	L. Strilczyk Coal	Ohaton
724	S. H. Burnstad	Burnstad's Coal	Ohaton
1420	Red Flame Coal Co. Ltd.	Red Flame Coal	Round Hill
1524	Geo. Shute & Partners	Demay Colls. Coal	Camrose
1603	Alberta Coal Co. Ltd.	Camcoal	Camrose
<b>Carbon Area</b>			
53	A. Fox	Carbon Sunrise Coal	Carbon
384	Inland Coal Co. Ltd.	Kneehill Valley Coal	Three Hills
690	J. W. Ryning	Ant Hill Coal	Rowley
710	East Trochu Coal Mine	Troalta Coal	Trochu
817	Ben Pickering	Black Jewell Coal	Ghost Pine Creek
921	Eric Reissig	Meadow Bank Coal	Trochu
1060	East Carbon Coal Co.	Reliable Coal	Carbon
1226	C. C. Campbell	Campbell Coal	Trochu
1283	Halbert Bros.	Victoria Coal	Trochu
1359	Balogh Bros.	Arctic Coal	Carbon
1499	Nuttal & Davidson	Fire King Coal	Three Hills
1538	Pastorchik & Partners	The New Ghost Pine Coal	Three Hills
1600	Peerless Coal Co.	Peerless Carbon Coal	Carbon
1621	M. E. Morel (Sarcee Coal Co.)	Black Jewel Coal	Ghost Pine Creek
1629	Alfred Fox	Sunbright Coal	Carbon
<b>Cascade Area</b>			
2	The Canmore Mines Ltd.	Canmore Briquettes	Canmore
2	The Canmore Mines Ltd.	Canmore Smokeless Coal	Canmore
1244	Frank Wheatley & Sons	Wheatley Bros. Coal	Banff
<b>Castor Area</b>			
251	Joe Tyrlik	Diamond G Coal	Heisler
289	Bailey & Strader	Gadsby Blue Blaze	Gadsby
291	James Chiswick	Sunset Coal	Gadsby
447	D. Gaetz	Ever Ready Coal	Forestburg
615	John Sank	Riverside Coal	Heisler
666	Killam Man. Co. Ltd.	K. M. Coal	Forestburg
902	O. V. Remillard	Remillard Coal	Castor
911	Strickland & Partners	Palace Coal	Heisler
913	Ben Hronek	Big Ben Coal	Halkirk
1046	J. F. Cordel	Cordel Coal	Halkirk
1062	Chas. Strader	Esperanze Coal	Halkirk
1232	H. J. Ainsworth	Ainsworth Coal	Halkirk
1237	Davis & Gormley	Ruby Glow Coal	Halkirk
1240	W. T. & W. J. Phillips	Bonny Blaze Coal	Castor
1248	Thomas Mitchinson	Mitchinson Coal	Donalda
1417	James Easton	Burn-Rite Coal	Castor
1435	E. Lien	Rosebush Coal	Edberg
1441	J. W. Marshall	Marshall Coal	Donalda
1572	A. Annonson	Black Eagle Coal	Donalda
1578	Bish Bros.	Bish Coal	Forestburg
1587	J. J. Mills	Eagle Coal	Heisler
1608	Castor Coal & Construction Co.	Castor Creek Coal	Castor
1614	A. Sorken	Radar Coal	Killam
1634	F. N. Wiltse	Canyon Mine Coal	Halkirk
1639	A. T. Miner	Miner's Coal	Rosalind
1642	Bradley & O'Brien	Active Coal	Halkirk
1650	Wm. Jones		Forestburg
<b>Champion Area</b>			
1509	A. M. S. McGaw	McGaw's Coal	Champion
1565	Mike Popovich	Ellis Coal	Champion

Mine No.	Name of Operator	Trade Name	Address
<b>Coalspur Area</b>			
769	Sterling Coll. Ltd.	Sterling Coal	Sterco
771	Foothills Collieries Ltd.	Foothills Coal	Foothills
775	Lakeside Coals Ltd.	Minehead Inferno Coal	Robb
846	McLeod River Hard Coal Co. (1941) Ltd.	McLeod River Hard Coal	Mercoal
1002	Coal Valley Mining Co. Ltd.	Cova Coal	Coal Valley
1157	Bryan Hard Coal Co. Ltd.	Bryan Mountain Hard Coal	Robb
<b>Crowsnest Area</b>			
87	West Canadian Coll. Ltd.	Bellevue Coal	Bellevue
88	International Coal and Coke Co. Ltd.	International Coal	Coleman
133	Hillcrest Mohawk Coll. Ltd.	Hillcrest Mohawk Coal	Bellevue
199	M. Wood	Beaver Mine	Beaver Mines
204	McGillivray Creek Coal & Coke Co. Ltd.	McGillivray Creek Coal	Coleman
396	West Canadian Coll. Ltd.	Greenhill Coal	Blairmore
1584	West Canadian Coll. Ltd.	Adanac Coal	Bellevue
1623	Neumann Bros.	Miridian Mine Coal	Pincher Creek
<b>Drumheller Area</b>			
346	Rosedale Collieries Ltd.	Rosedale Coal	Rosedale
367	Midland Coal Mining Co. Ltd.	Midland Coal	Midlandvale
402	Red Deer Valley Coal Co. Ltd.	Glocoal	Drumheller
422	Commander Coal Mine	Commander Coal	Drumheller
436	Rosedale Collieries Ltd.	Star Coal	Aerial
620	Newcastle Collieries Ltd.	Newcastle Coal	Drumheller
728	Maple Leaf Minerals Ltd.	National Coal	Drumheller
844	Ideal Coal Co. Ltd.	Ideal Coal	Wayne
1117	O. W. Whittaker	Hi-heat Coal	Beynon
1258	Brilliant Coal Company	Brilliant Coal	Drumheller
1229	Saskatchewan Federated Co-operatives Ltd.	Empire Coal	East Coulee
1421	Hy-Grade Coal Mining Co. Ltd.	Hy-Grade Coal	Drumheller
1484	Regal Coal Co. Ltd.	New Wildfire Coal	East Coulee
1491	Murray Collieries Ltd.	New Murray Coal	East Coulee
1493	Western Gem & Jewel Coll. Ltd.	Cambrian Coal	Cambria P.O.
1511	Aetna Coal Co.	Aetna Coal	East Coulee
1515	H. S. Chambers	Foye's Coal	Willow Creek
1520	The Minute Coal Co.	Good Quality Coal	Drumheller
1544	Castle Coal Co. Ltd.	Castle Coal	Wayne
1570	Sovereign Coal Mining Co. Ltd.	Sovereign Coal	Wayne
1573	Monarch Coal Mining Co. Ltd.	Western Monarch Coal	Drumheller
1583	John Hamilton	Reliance Coal	Della
1589	Arcadia Coal Mines Ltd.	Purity Hard Coal	Willow Creek
1599	H. S. Chambers	Burn-Brite Coal	Drumheller
<b>Edmonton Area</b>			
29	E. Woytowich	Excel Coal	South Edmonton
91	Ottewell Coal Co.	Clover Gem Coal	Clover Bar
99	Great West Coal Co. Ltd.	Black Diamond Coal	Clover Bar
129	Sundance Mines Ltd.	Suncoale	Cardiff
428	Banner Coals Ltd.	Penn Coal	Carbondale
1034	Dolinski, Yaniv & Maik	Black Point Coal	South Edmonton
1098	Long Coal Co. Ltd.	Hardite Coal	Namao
1266	Edmonton Coll. Ltd.	New Black Gem Coal	Namao
1316	Samis Collieries	Samis Coal	Namao
1357	Red Hot Coal Co. Ltd.	Red Hot Coal	Edmonton
1366	Beverly Coal Ltd.	Beverly Coal	Beverly
1419	Pine Creek Mine	Pine Creek Coal	South Edmonton
1463	Riverdale Coal Co. Ltd.	Dependable Coal	Namao
1496	D. J. Gwilliam	Black Beauty Coal	Namao
1560	N. Nimko	White Mud Creek Coal	South Edmonton
1582	Egg Lake Coal Co.	Egg Lake Coal	Morinville
1626	J. B. Starky Co. Ltd.	Star-Key Coal	Carbondale
1627	Dickinson & Knight	Carbondale Coal	Carbondale
1628	Blue Point Mine	Blue Point Coal	South Edmonton
1632	C. F. MacLachlan	Beaver Hills Coal	Edmonton
1635	John Camarta	Spitfire Coal	Cardiff
1636	D. Chiarello	Legal Coal	Legal
1641	A. Horkulak		Edmonton
1643	Cherrille Bros.	Highway Coal	Legal
1646	J. G. Mucha	Bright Service Coal	South Edmonton
<b>Gleichen Area</b>			
72a	Blackfoot Indians		Gleichen
299	K. J. Schnepf	Bright Hard Coal	Rosebud
1265	H. Castella & Son	Standard Coal	Standard
1431	John Guiney	Consumer's Coal	Rosebud
1521	Wm. McMillan	Supreme of the Valley Coal	Rosebud
<b>Halcourt Area</b>			
651	Baldwin Collieries	Globe Coal	Grande Prairie
1506	Campbell & O'Reilly	Millarstone Coal	Dimisdale
1539	Dunbar & Partners	Dunbar's Coal	Hinton Trail
1588	Dahl & Cage	Hillside Coal	Halcourt
1591	Howarth & Fraser	Cardenden Coal	Halcourt
1633	Wm. Fraser	Fraser Coal	Halcourt
1647	R. O. Johnston	Big Mountain Creek Coal	Grande Prairie
1651	C. D. Grubb	Aspen Dale Coal	Hualien

Mine No.	Name of Operator	Trade Name	Address
<b>Highwood Area</b>			
1625	Allied Industrials Ltd.		Turner Valley
<b>High Prairie Area</b>			
1567	Triangle Mining Co.	Hi-lite Coal	High Prairie
1615	Tissington & Schultz	Smokey River Coal	High Prairie
<b>Lethbridge Area</b>			
56	A. Rozzolini	The Baker Coal	Magrath
738	George Rollingson	Whoopup Coal	Lethbridge
1086	Forsyth, Fairbanks & Varga	Big Chief Coal	Magrath
1095	Chester Mine	Royal Coal	Lethbridge
1219	New Royal View Mine	Lethbridge Gem Coal	Lethbridge
1263	Lethbridge Coll. Ltd.	Cadillac Coal	Shaughnessy
1464	Lethbridge Coll. Ltd., No. 8	Galt Coal	Lethbridge
1581	J. J. Hamilton Coal Co.	Federal Coal	Lethbridge
<b>Milk River Area</b>			
1301	Thomas Taylor	New Benwell Coal	Groton
1380	Lucky Strike Coal Co.	Kippen Coal	Masinasin
<b>Morley Area</b>			
1619	B. Ainsley & Son	Fire Cloud Coal	Morley
<b>Mountain Park Area</b>			
282	Mountain Park Coals Ltd.	Mountain Park Coal	Mountain Park
693	Cadomin Coal Co. Ltd.	Cadomin Coal, Rocky Mtn. Splint	Cadomin
905	Luscar Coals Ltd.	Luscar Coal	Luscar
1617	Luscar Coals Ltd.	Luscar Coal	Luscar
1631	King Coals Ltd.	King Coal	Cadomin
<b>Nordegg Area</b>			
256	Brazeau Collieries Ltd.	Brabeau Bituminous Steam Coal	Nordegg
1585	Brazeau Collieries Ltd.	Brazeau Bituminous Steam Coal	Nordegg
<b>Pakowki Area</b>			
602	Vogel & Rosenfelter		Little Plume
1318	W. Raeder	Elkwater Coal	Elkwater
<b>Pekisko Area</b>			
1516	G. C. Davies	O.V. Coal	Priddis
1638	E. Payne	E. P. Coal	Turner Valley
<b>Pembina Area</b>			
419	Lakeside Coals Ltd.	Victory Coal	Wabamun
1495	Pembina Coll. Ltd.	Pembina Peerless Coal	Entwistle
1409	Gainford Collieries (1946) Ltd.	Gain-heat Coal	Gainford
1596	Wm. Robinson	Robinson's Coal	Entwistle
1630	Lake Isle Mine	Lake Isle Coal	Gainford
1645	Lothian Collieries Ltd.	Blue Flame Coal	Wabamun
1649	K. Schon	Rocky Rapid Coal	Moon Lake
1652	Fry & Larson		Seba Beach
1592	Mt. Royal Collieries Ltd.	Mount Royal Coal	Stony Plain
1595	Yellowknife Trans. Co. Ltd.	Genesee Coal	Genesee
1637	H. H. Wright		Genesee
1644	Strawberry Creek Coal Co. Ltd.	Strawberry Creek Coal	Warburg
<b>Pincher Area</b>			
59	Keith Coal Co.	Red Devil Coal	Lundbreck
1440	W. B. Rhodes	Quick Flame Coal	Lundbreck
<b>Prairie Creek Area</b>			
1653	Woodley Mine	Red Glow Coal	Hinton
<b>Redcliff Area</b>			
772	Ajax Coal Company	Ajax Coal	Medicine Hat
<b>Rochester Area</b>			
1517	Thorhild Coal Co.	Dandy Coal	Thorhild
1562	Thomlinson & Kaszuba	North Point Coal	Thorhild
<b>Saunders Area</b>			
388	Bighorn & Saunders Creek Coll. Ltd.	Bighorn & Saunders Creek Coal	Saunders
852	Alexo Coal Co. Ltd.	Alexo Coal	Alexo
<b>Sheerness Area</b>			
443	Chinook Coal Co. Ltd.	Sheerness Chinook Coal	Sheerness
486	Litke Bros.	Superior Coal	Hanna
1314	C. Gaetz	Gowan Coulee Coal	Hanna
1398	Ironside & Glover	Ironside Coal	Scapa
1401	F. M. Pahl	Eureka Coal	Hanna
1432	Sheerness Coal Co. Ltd.	Sheebo Coal	Sheerness
1553	Masciangelo & Partners	Blossom Mine Coal	Della
1597	A. J. Bordula	Bordula Coal	Hanna

## THE MINES BRANCH

Mine No.	Name of Operator	Trade Name	Address
<b>Taber Area</b>			
672	C. J. Lavenne	Acadia Coal	Bow Island
1334	Southern Alberta Coal Co. Ltd.	Alburna Coal	Grassy Lake
1536	Oliver Coal Mines	Oliver Senior Coal	Taber
1604	Southern Alberta Coal Co. Ltd.	Firewel Coal	Taber
1609	Southern Alberta Coal Co. Ltd.	Firewel Coal	Taber
1602	Vulcan Min. & Construction Ltd.	Vulcan Coal	Vulcan
<b>Tofield Area</b>			
215	Emil Skarin	North Star Coal	Dodds
252	Tofield Coal Co. Ltd.	Headlight Coal	Tofield
1206	Ryley Coal Co.	Ryley Coal	Ryley
1107	Black Nugget Coal Co. Ltd.	Hi Lo Coal	Dodds
1624	C. Binder	Ryalta Coal	Ryley
<b>Westlock Area</b>			
1523	Picardville Coal Co.	Picardville Coal	Picardville
<b>Wetaskiwin Area</b>			
1534	Peter Gill	Canyon Creek Coal	Thorsby
<b>Whitecourt Area</b>			
1569	A. Watson	Blue Ridge Coal	Blue Ridge
1612	R. R. Pritchard	Burnwell Coal	Blue Ridge
<b>No Area</b>			
1616	Pinto Creek Coal Co. Ltd.	Pinto Creek Coal	Wembley

## PARTICULARS OF OPERATING MINES IN THE VARIOUS AREAS

## ARDLEY AREA

**J. W. Sissons—Mine No. 809**

Mine Office: Alix, Alberta.  
 Overman: Clive Sissons.  
 Mine Surveyor: Robert Hamilton.  
 Location of Mine: E. of C.N.R. L.S. 6.  
 Sec. 33, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 40 feet.  
 Form of Opening: Stripping operation.  
 Truck mine.

**James Blades—Mine No. 969**

Mine Office: Delburne, Alberta.  
 Overman: James Blades.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: N.W. ¼, Sec. 10, Tp. 38, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 3½ ft.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: Up to 100 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 6ft. Depth of Slope: 80 feet.  
 Truck mine.

**Arne Anderson—Mine No. 1018**

Mine Office: Ardley, Alberta.  
 Overman: Arne Anderson.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 3, Sec. 17, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 30 to 100 feet.  
 Form of Opening: Drift. Size of Drift: 6ft. by 7ft.  
 Truck mine.

**B. C. Kurp—Mine No. 1135**

Mine Office: Delburne, Alberta.  
 Overman: Karl Kurp.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 4, Sec. 7, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 55 feet.  
 Form of Opening: Entry. Size of Entry: 6ft. by 6ft.  
 Truck mine.

**Lynass Coal Mine—Mine No. 1322**

Mine Office: Delburne, Alberta.  
 Overman: John Lynass.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 16, Sec. 7, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Truck mine.

**Chas. O. Russell—Mine No. 1488**

Mine Office: Alix, Alberta.  
 Overman: Chas. O. Russell.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 3, Sec. 29, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 45 feet.  
 Truck mine.

**Kehl & McGladrie—Mine No. 1586**

Mine Office: Nevis, Alberta.  
 Overman: Frank I. Kehl.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 5, Sec. 35, Tp. 37, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4ft. 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 75 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 7ft. Depth of Slope: 135 feet.  
 C.N.R. and Truck mine.

**S. S. Munro & Son—Mine No. 1605.**

Mine Office: Ardley, Alberta.  
 Overman: S. S. Munro.  
 Mine Surveyor: David Jones.  
 Fireboss: John Nashchuk.  
 Location of Mine: L.S. 12, Sec. 35, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 3 feet.  
 Truck mine.

**William Barrell & A. Auvigne—Mine No. 1613.**

Mine Office: Ardley, Alberta.  
 Overman: W. Barrell.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 10, Sec. 20, Tp. 38, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5½ ft. to 6ft.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 75 to 100 feet.  
 Stripping operation. Truck mine.

## BIG VALLEY AREA

**Big Valley Coal Co.—Mine No. 864**

Head Office: Big Valley.  
 Mine Office: Big Valley, Alberta.  
 Mine Manager: John McAllister.  
 Mine Surveyor: David Jones.  
 Overman: Alexander McCulloch.  
 Location of Mine: L.S. 16, Sec. 26, Tp. 35, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 9 feet.  
 Inclination of Seam: Level.  
 Thickness of Cover: 15 feet.  
 Form of Opening: Slope. Size of Slope: 7 feet. Depth of Slope: 6 feet.  
 Truck and C.N.R. Mine.

**Robert Campkin—Mine No. 1254**

Mine Office: Lousana, Alberta.  
 Overman: Robert Campkin.  
 Mine Surveyor: David Jones.  
 Location of Mine: S.W. ¼ L.S. 16, Sec. 12, Tp. 36, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Level.  
 Truck mine.

## BROOKS AREA

**Birnwel Coal, Ltd.—Mine No. 1404**

Name of President and Managing Director: J. G. Westgate.  
 Name of Vice-President: R. M. Balfour.  
 Name of Sec.-Treas.: O. B. Whitman.  
 Head & Mine Office: Eyremore, Alberta.  
 Mine Manager: A. G. Bendell.  
 Mine Surveyor: A. E. Williams.  
 Location of Mine: Sec. 15, Tp. 17, Rge. 17, W. 4th Mer.  
 Thickness of Seam: 5ft. 5in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 to 40 feet.  
 Form of Opening: Open stripping.  
 Truck and C.P.R. mine.

## CAMROSE AREA

**Joe Proskow—Mine No. 241**

Mine Office: Dinant, Alberta.  
 Overman: J. Proskow.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 4, Sec. 18, Tp. 48, Rge. 19, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 15 feet.  
 Stripping operation. Truck mine.

**L. Strilczyk—Mine No. 610**

Mine Office: Ohaton, Alberta.  
 Overman: L. Strilczyk.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 8, Sec. 10, Tp. 48,  
 Rge. 18, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 18 feet.  
 Stripping operation. Truck mine.

**S. H. Burnstadt—Mine No. 724**

Mine Office: Round Hill.  
 Overman: S. H. Burnstadt.  
 Mine Surveyor: D. Jones.  
 Location of Mine: S.W.  $\frac{1}{4}$ , Sec. 15, Tp.  
 48, Rge. 18, W. 4th Mer.  
 Thickness of Seam: 6ft.  
 Thickness of Cover: 10 ft.  
 Stripping operation. Truck mine.

**Red Flame Coal Co., Ltd.—Mine No. 1420**

Authorized Capital: \$20,000.  
 Name of President: John Russell.  
 Names of Directors: John Russell, Alex.  
 Russell, R. Shortreed.  
 Name of Sec.-Treas.: R. Shortreed.  
 Mine Office: Round Hill, Alberta.  
 Overman: John Russell.  
 Mine Surveyor: David Jones.  
 Fireboss: W. V. Gotheridge.  
 Location of Mine: L.S. 14, Sec. 19, Tp.  
 48, Rge. 18, W. 4th Mer.  
 Thickness of Seam: 6ft. to 7ft.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 110 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 7ft. Depth of Slope: 225 feet.  
 Truck and C.N.R. mine.

**Geo. Shute & Partners—Mine No. 1524**

Mine Office: Dinant, Alberta.  
 Overman: Geo. Shute.  
 Mine Surveyor: David Jones.  
 Location of Mine: E.  $\frac{1}{2}$  Sec. 7, Tp. 48,  
 Rge. 19, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 17 feet.  
 Stripping operation.  
 Truck mine.

**Alberta Coal Co. Ltd.—Mine No. 1603**

Authorized Capital: \$200,000.  
 President and Managing Director: D.  
 Twomey, Jr.  
 Mine Office: Camrose, Alberta.  
 Mine Manager: D. Twomey, Jr.  
 Overman: R. B. Munn.  
 Mine Surveyor: A. E. Williams.  
 Location of Mine: L.S. 2 and 7, Sec. 29,  
 Tp. 46, Rge. 19, W. 4th Mer.  
 Thickness of Seam: 5ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 to 27 feet.  
 Form of Opening: Strip pit.  
 Truck mine.

**CARBON AREA****A. Fox—Mine No. 53**

Mine Office: Carbon, Alberta.  
 Overman: A. Fox.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 3, Sec. 14, Tp. 29,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 3ft. 10in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: Up to 150 feet.  
 Truck mine.

**Inland Coal Co., Ltd.—Mine No. 384**

Authorized Capital: \$20,000.  
 Name of President: W. J. Nesbitt.  
 Name of Directors: W. J. Nesbitt, R. B.  
 Watson.  
 Name of Sec.-Treas.: R. D. Watson.  
 Head Office: 804 McLeod Bldg., Edmon-  
 ton, Alberta.

Mine Office: Three Hills, Alberta.  
 Mine Manager: R. T. Stewart.  
 Mine Surveyor: R. T. Stewart.  
 Firebosses: P. George, W. H. Mullinger.  
 Location of Mine: L.S. 3, Sec. 36, Tp. 31,  
 Rge. 24, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Dips  $1\frac{1}{2}$  S.E.  
 Thickness of Cover: 160 feet.  
 Form of Opening: Shaft. Size of Shaft:  
 11 $\frac{1}{2}$ ft. by 8ft. Depth of Shaft: 169  
 feet.  
 C.N.R. and Truck mine.

**Jas. W. Ryning—Mine No. 690**

Mine Office: Rowley, Alberta.  
 Overman: Jas. W. Ryning.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 4, Sec. 13, Tp. 32,  
 Rge. 21, W. 4th Mer.  
 Thickness of Seam: 5 feet  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 103 feet.  
 Form of Opening: Shaft. Size of Shaft:  
 6ft. by 8ft. Depth of Shaft: 114 feet.  
 Truck mine.

**East Trochu Coal Co.—Mine No. 710**

Mine Office: Trochu, Alberta.  
 Overman: Lloyd G. Yard.  
 Mine Surveyor: David Jones.  
 Location of Mine: S.E.  $\frac{1}{4}$  L.S. 9, Sec. 14,  
 Tp. 33, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 96 feet.  
 Form of Opening: Drift.  
 Truck mine.

**Ben Pickering—Mine No. 817**

Mine Office: Ghost Pine Creek, Alberta.  
 Overman: Ben Pickering.  
 Mine Surveyor: G. L. Kidd.  
 Location: L.S. 2, Sec. 6, Tp. 31, Rge. 21,  
 W. 4th Mer.  
 Thickness of Seam: 5ft. 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 50 feet.  
 Form of Opening: Slope. Size of Slope:  
 5ft. by 6ft. Depth of Slope: 100 feet.  
 Truck mine.

**Eric Reissig—Mine No. 921**

Mine Office: Trochu, Alberta.  
 Overman: E. Reissig.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 15, Sec. 14, Tp.  
 33, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5ft. 2in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 85 feet.  
 Form of Opening: Slope. Size of Slope:  
 7ft. by 5ft.  
 Truck mine.

**East Carbon Coal Co. Ltd.—Mine No. 1060**

Mine Office: Carbon, Alberta.  
 Overman: Ben Fox.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 12, Sec. 7, Tp. 29,  
 Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4ft. 3in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 7ft. Depth of Slope: 100 feet.  
 C.P.R. and Truck mine.

**C. C. Campbell—Mine No. 1226**

Mine Office: Trochu, Alberta.  
 Overman: C. C. Campbell.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 9, Sec. 29, Tp. 33,  
 Rge. 22, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 135 feet.  
 Form of Opening: Level drift.  
 Truck mine.



**Halbert Bros.—Mine No. 1283**

Mine Office: Trochu, Alberta.  
 Overman: John G. Halbert.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 8, Sec. 14, Tp. 33,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 30 to 80 feet.  
 Form of Opening: Slope. Size of Slope:  
 5ft. by 6ft. Length of Slope: 150 feet.  
 Truck mine.

**Balogh Bros.—Mine No. 1359**

Mine Office: Carbon, Alberta.  
 Overman: Aron Balogh.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 8, Sec. 13, Tp. 29,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 3ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 125 feet.  
 Form of Opening: Slope. Size of Slope:  
 7ft. by 6ft.  
 C.P.R. and Truck mine.

**Nuttall & Davidson—Mine No. 1499**

Mine Office: Three Hills, Alberta.  
 Overman: W. W. Davidson.  
 Mine Surveyor: J. R. Whigham-Teasdale.  
 Location of Mine: L.S. 1, Sec. 9, Tp. 31,  
 Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 8 to 25 feet.  
 Stripping operation. Truck mine.

**W. Pastorchik & Partners—Mine No. 1538**

Mine Office: Three Hills, Alberta.  
 Overman: W. Pastorchik.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 9, Sec. 9, Tp. 31,  
 Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 16 feet.  
 Stripping operation. Truck mine.

**Peerless Coal Co.—Mine No. 1600**

Mine Office: Carbon, Alberta.  
 Manager: H. R. Brown.  
 Mine Surveyor: H. R. Brown.  
 Location of Mine: L.S. 2, Sec. 15, Tp. 29,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 3ft. 9in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 45 to 225 feet.  
 Form of Opening: Slope. Size of Slope:  
 6½ft. by 5½ft. Depth of Slope:  
 214 feet.  
 Truck mine.

**M. E. Morel—Mine No. 1621**

Mine Office: Ghost Pine Creek, Alberta.  
 Overman: M. E. Morel.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 8, Sec. 10, Tp. 31,  
 Rge. 22, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 50 feet.  
 Strip operation.  
 Truck mine.

**CASCADE AREA****The Canmore Mines, Ltd.—Mine No. 2**

Authorized Capital: \$1,000,000.  
 Name of President: Edmund Hayes.  
 Names of Directors: E. Hayes, B. F.  
 Crane, W. R. Stewart, A. J. McMillan,  
 R. M. Young, L. S. Headley.  
 Name of Secretary: J. A. Macleod.  
 Name of Treasurer: Louis S. Headley.  
 Mine Office: Canmore, Alberta.  
 General Manager: R. M. Young.  
 Mine Manager: W. Wilson.  
 Mine Surveyor: C. S. Dewis.  
 Overmen: H. Crawford, A. Fox.

Firebosses: J. Brown, M. Carmichael, A.  
 Knudson, A. Kowal, S. Lauhela, W.  
 Lytkowski, V. Mrokwia, A. Musgrove,  
 H. Niskanen, J. Riva, B. Rogers, J.  
 Wardrop.

Location of Mine: N.E. ¼ L.S. 1, Sec. 29,  
 Tp. 24, Rge. 10, W. 5th Mer.  
 Thickness of Seam: 8 ft. and 10 ft.  
 Inclination of Seams: 10 to 35 degrees.  
 Thickness of Cover: Up to 2,000 feet.  
 Form of Opening: Slope. Size of Slope:  
 16ft. by 8ft. Depth of Slope: No. 4  
 Seam, 2,400 feet; Stewart & Morris,  
 1,000 feet.  
 C.P.R. and Truck mine.

**Frank Wheatley & Sons—Mine No. 1244**

Mine Office: Banff, Alberta.  
 Mine Manager: Frank Wheatley.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 12, Sec. 4, Tp. 26,  
 Rge. 11, W. 5th Mer.  
 Thickness of Seam: 9 feet.  
 Inclination of Seam: 40 degrees.  
 Thickness of Cover: 278 feet.  
 Form of Opening: Tunnel.  
 Truck mine.

**CASTOR AREA****John Tyrlik—Mine No. 251**

Mine Office: Heisler, Alberta.  
 Overman: John Tyrlik.  
 Mine Surveyor: David Jones.  
 Location of Mine: S.W. ¼ L.S. 16, Sec.  
 28, Tp. 42, Rge. 17, W. 4th Mer.  
 Thickness of Seam: 5ft. 4in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 70 feet.  
 Form of Opening: Tunnel. Size of Open-  
 ing: 4ft. by 4ft. Depth of Opening:  
 30 feet.  
 Truck mine.

**James Chiswick—Mine No. 291**

Mine Office: Gadsby, Alberta.  
 Overman: James Chiswick.  
 Mine Surveyor: David Jones.  
 Location of Mine: S. ½ L.S. 11, Sec. 28,  
 Tp. 39, Rge. 16, W. 4th Mer.  
 Thickness of Seam: 4ft. 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 to 35 feet.  
 Form of Opening: Slope. Size of Slope:  
 5ft. by 6ft. Depth of Slope: 85 feet.  
 Truck mine.

**Komperdo Bros. & Partners—Mine  
No. 615**

Mine Office: Heisler, Alberta.  
 Overman: John Komperdo.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 13, Sec. 22, Tp.  
 42, Rge. 17, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 90 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 7ft. Depth of Slope: 60 feet.  
 Truck mine.

**Killam Manufacturing Co., Ltd.—  
Mine No. 666**

Mine Office: Forestburg, Alberta.  
 Overman: A. Dempsey.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 16, Sec. 2, Tp. 41,  
 Rge. 16, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 feet.  
 Stripping operation. Truck mine.

**O. V. Remillard—Mine No. 902**

Mine Office: Castor, Alberta.  
 Overman: O. V. Remillard.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 15, Sec. 16, Tp.  
 33, Rge. 37, W. 4th Mer.

Thickness of Seam: 5 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 26 to 50 feet.  
Form of Opening: Slope. Size of Slope:  
5ft. by 6ft. Depth of Slope: 90 feet.  
Truck mine.

**T. Strickland & Partners—Mine No. 911**

Mine Office: Heisler, Alberta.  
Overman: T. Strickland.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 1, Sec. 33, Tp. 42,  
Rge. 17, W. 4th Mer.  
Thickness of Seam: 4½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 55 feet.  
Form of Opening: Slope. Size of Slope:  
6ft. by 6ft. Depth of Slope: 140 feet.  
Truck mine.

**Ben Hronek—Mine No. 913**

Mine Office: Halkirk, Alberta.  
Overman: Ben Hronek.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 1, Sec. 7, Tp. 39,  
Rge. 15, W. 4th Mer.  
Thickness of Seam: 6 feet.  
Inclination of Seam: Flat.  
Thickness of Cover: 92 feet.  
Form of Opening: Slope. Size of Slope:  
6ft. by 6ft. Depth of Slope: 150 feet.  
Truck mine.

**J. F. Cordel—Mine No. 1046**

Mine Office: Halkirk, Alberta.  
Overman: E. G. Cordel.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 6, Sec. 20, Tp. 40,  
Rge. 15, W. 4th Mer.  
Thickness of Seam: 10 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 50 feet.  
Form of Opening: Slope. Size of Slope:  
5ft. by 6ft. Depth of Slope: 150 feet.  
Truck mine.

**Chas Strader—Mine No. 1062**

Mine Office: Halkirk, Alberta.  
Overman: Chas. Strader.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 4, Sec. 17, Tp. 39,  
Rge. 15, W. 4th Mer.  
Thickness of Seam: 5½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 35 to 75 feet.  
Form of Opening: Drift. Size of Drift:  
6ft. by 8ft.  
Truck mine.

**J. H. Ainsworth—Mine No. 1232**

Mine Office: Halkirk, Alberta.  
Overman: J. H. Ainsworth.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 13, Sec. 25, Tp.  
40, Rge. 16, W. 4th Mer.  
Thickness of Seam: 6 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 42 feet.  
Form of Opening: Tunnel.  
Truck mine.

**Davis & Gormley—Mine No. 1237**

Mine Office: Halkirk, Alberta.  
Overman: A. J. Hooke.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 12, Sec. 8, Tp. 39,  
Rge. 15, W. 4th Mer.  
Thickness of Seam: 5ft. 8in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 82 feet.  
Truck mine.

**W. T. Phillips & W. J. Phillips—  
Mine No. 1240**

Mine Office: Castor, Alberta.  
Overman: W. T. Phillips.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 1 and 2, Sec. 4,  
Tp. 38, Rge. 14, W. 4th Mer.  
Thickness of Seam: 4½ feet.

Inclination of Seam: Horizontal.  
Thickness of Cover: 46 feet.  
Form of Opening: Slope. Size of Open-  
ing: 5ft. by 5ft. Length of Slope:  
150 feet.  
Truck mine.

**Thomas Mitchinson—Mine No. 1248**

Mine Office: Donalda, Alberta.  
Overman: Thomas Mitchinson.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 10 and 11, Sec.  
29, Tp. 41, Rge. 17, W. 4th Mer.  
Thickness of Seam: 4ft. 6in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 100 feet.  
Form of Opening: Slope. Size of Slope:  
5ft. by 5ft. Depth of Slope: 30 feet.  
Truck mine.

**James Easton—Mine No. 1417**

Mine Office: Castor, Alberta.  
Overman: James Easton.  
Mine Surveyor: David Jones.  
Location of Mine: N. ½ L.S. 6 and 14,  
Sec. 34, Tp. 37, Rge. 14, W. 4th Mer.  
Thickness of Seam: 5 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 30 feet.  
Form of Opening: Slope. Size of Slope:  
5ft. by 5ft. Depth of Slope: 125 feet.  
Truck mine.

**E. Lien—Mine No. 1435**

Mine Office: Edberg, Alberta.  
Overman: A. Mitchinson.  
Mine Surveyor: David Jones.  
Location of Mine: S. ½ L.S. 11, Sec. 2,  
Tp. 44, Rge. 19, W. 4th Mer.  
Thickness of Seam: 4ft. 8in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 75 feet.  
Form of Opening: Drift. Size of Drift:  
5ft. by 6ft.  
Truck mine.

**J. W. Marshall—Mine No. 1441**

Mine Office: Donalda, Alberta.  
Overman: J. W. Marshall.  
Mine Surveyor: J. W. Marshall.  
Location of Mine: L.S. 12, Sec. 16, Tp. 42,  
Rge. 17, W. 4th Mer.  
Thickness of Seam: 10ft. 10in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 135 feet.  
Form of Opening: Drift.  
Truck mine.

**H. C. Muncy—Mine No. 1541**

Mine Office: Foreman, Alberta.  
Overman: H. C. Muncy.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 15, Sec. 26, Tp. 40,  
Rge. 16, W. 4th Mer.  
Thickness of Seam: 5½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 30 to 50 feet.  
Form of Opening: Shaft. Size of Shaft:  
5ft. by 6ft. Depth of Shaft: 45 feet.  
Truck mine.

**A. Anonson—Mine No. 1572**

Mine Office: Donalda, Alberta.  
Overman: A. Anonson.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 5, Sec. 28, Tp. 41,  
Rge. 17, W. 4th Mer.  
Thickness of Seam: 5ft. 3in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 130 feet.  
Form of Opening: Drift.  
Truck mine.

**Bish Bros.—Mine No. 1578**

Mine Office: Forestburg, Alberta.  
Overman: M. C. Carmichael.  
Mine Surveyor: David Jones.  
Location of Mine: L.S. 15, Sec. 36, Tp. 40,  
Rge. 16, W. 4th Mer.  
Thickness of Seam: 8 feet.

Inclination of Seam: Horizontal.  
 Thickness of Cover: 42 feet.  
 Form of Opening: Shaft. Size of shaft:  
 5ft. by 8ft. Depth of Shaft: 50 feet.  
 Truck mine.

#### J. J. Mills & Sons—Mine No. 1587

Mine Office: Heilsler, Alberta.  
 Overman: J. J. Mills.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 5, Sec. 22, Tp. 42,  
 Rge. 17, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 110 feet.  
 Form of Opening: Slope. Size of Slope:  
 7ft. by 6ft. Depth of Slope: 153 feet.  
 C.N.R. and Truck mine.

#### Castor Coal & Construction Co.— Mine No. 1608

Authorized Capital: \$150,000.  
 Name of President: J. D. Henderson (de-  
 ceased).  
 Vice-President: D. C. Henderson.  
 Names of Directors: D. C. Henderson,  
 H. H. Albright.  
 Name of Sec.-Treas.: H. H. Albright.  
 Head Office: 607 Lancaster Bldg., Cal-  
 gary, Alberta.  
 Mine Office: Castor, Alberta.  
 Mine Manager: W. G. Brown.  
 Mine Surveyor: David Jones.  
 Overman: R. Walker.  
 Location of Mine: S.W. ½ L.S. 6, Sec. 3,  
 Tp. 38, Rge. 14, W. 4th Mer.  
 Thickness of Seam: 3 to 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 to 22 feet.  
 Stripping operation. Truck mine.

#### Alfred Sorken—Mine No. 1614

Mine Office: Killam, Alberta.  
 Overman: A. Sorken.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 16, Sec. 26, Tp.  
 40, Rge. 16, W. 4th Mer.  
 Thickness of Seam: 6½ feet.  
 Inclination of Seam: Horizontal.  
 Stripping operation.  
 Truck mine.

#### F. N. Wiltse—Mine No. 1634

Mine Office: Halkirk, Alberta.  
 Overman: F. N. Wiltse.  
 Mine Surveyor: David Jones.  
 Location of Mine: W. ½ L.S. 11, Sec. 32,  
 Tp. 39, Rge. 15, W. 4th Mer.  
 New mine just being opened; no par-  
 ticulars.

#### Bradley & O'Brien—Mine No. 1642

Mine Office: Halkirk, Alberta.  
 Overman: A. O'Brien.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 14, Sec. 25, Tp.  
 40, Rge. 16, W. 4th Mer.  
 Thickness of Seam: 6 to 7 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 50 feet.  
 Form of Opening: Drift.  
 Truck mine.

### CHAMPION AREA

#### A. M. S. McGaw—Mine No. 1509

Mine Office: Champion, Alberta.  
 Overman: A. M. S. McGaw.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 15, Sec. 33, Tp. 15,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 3ft. 7in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 90 feet.  
 Form of Opening: Slope. Size of Slope:  
 5ft. by 6ft. Depth of Slope: 226 feet.  
 Truck mine.

#### Mike Popovich—Mine No. 1565

Mine Office: Champion, Alberta.  
 Overman: M. Popovich.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 9, Sec. 8, Tp. 16,  
 Rge. 23, W. 4th Mer.  
 Thickness of Seam: 3¼ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 105 feet.  
 Form of Opening: Slope. Size of Slope:  
 5ft. by 6ft. Depth of Slope: 225 feet.  
 Truck mine.

### COALSPUR AREA

#### Sterling Collieries, Ltd.—Mine No. 769

Authorized Capital: \$500,000.  
 Name of President: C. B. Munson.  
 Names of Directors: C. B. Munson, H. R.  
 Milner, W. F. Stevenson, S. W. Field,  
 F. J. Mitchell.  
 Name of Secretary-Treasurer: F. J. Mit-  
 chell.  
 Head Office: 912 McLeod Building, Ed-  
 monton, Alberta.  
 Mine Office: Sterco, Alberta.  
 General Manager: W. F. Stevenson.  
 Overman: J. A. Holroyd.  
 Mine Surveyors: W. F. Stevenson, R. H.  
 Watson.  
 Location of Mine: L.S. 12, Sec. 35, Tp.  
 47, Rge. 20, W. 5th Mer.  
 Thickness of Seam: 180 feet.  
 Thickness of Cover: 15 feet.  
 Form of Opening: Open pit.  
 Mine located on C.N.R.

#### The Foothills Collieries, Ltd.— Mine No. 771

Authorized Capital: \$300,000.  
 Name of President: A. E. Windatt.  
 Name of Directors: E. H. Bennest, H.  
 Wallace, C. D. Shepard, F. Andrews,  
 Hon. S. R. Vereker.  
 Name of Sec.-Treas.: F. Andrews.  
 Mine Office: Foothills, Alberta.  
 General Manager: A. E. Windatt.  
 Mine Manager: Wm. Morris.  
 Mine Surveyor: L. C. Stevens.  
 Overman: E. Griffiths.  
 Firebosses: J. E. Mitchell, R. Tompkins,  
 E. Richards, W. Gregory.  
 Location of Mine: L.S. 10, Sec. 24, Tp.  
 47, Rge. 20, W. 5th Mer.  
 Thickness of Seam: 8ft. 9in.  
 Inclination of Seam: 20 to 22 degrees.  
 Thickness of Cover: 400 feet.  
 Form of Opening: Slope. Size of Slope:  
 10ft. Depth of Slope: 1,900 feet.  
 Mine located on C.N.R.

#### Lakeside Coals, Ltd.—Mine No. 775

Authorized Capital: \$660,000.  
 Name of President: E. A. McBain  
 (ceased).  
 Names of Directors: E. A. McBain (de-  
 ceased), W. W. McBain, W. A. McBain.  
 Name of Sec.-Treas.: W. A. McBain.  
 Head Office: Edmonton, Alberta.  
 Mine Office: Robb, Alberta.  
 General Manager: Wm. Foster.  
 Mine Surveyor: Wm. Foster.  
 Mine Manager: Dan Jones.  
 Firebosses: W. Birrell, Wm. Thirlwell,  
 H. Rhodes.  
 Location of Mine: S.W. ¼ Sec. 14, Tp. 49,  
 Rge. 21, W. 5th Mer.  
 Thickness of Seam: 5ft. 6in.  
 Inclination of Seam: 34 degrees.  
 Thickness of Cover: 800 feet.  
 Form of Opening: Slope. Size of Slope:  
 7ft. by 11ft. Depth of Slope: 400 feet.  
 Mine on C.N.R.

#### McLeod River Hard Coal Co. (1941), Ltd. —Mine No. 846

Authorized Capital: \$50,000.  
 Name of President: J. A. Boyd.  
 Names of Directors: J. A. Boyd, R. W.  
 Steele, Arthur Cross, George Kidd,  
 C. J. Cockshutt.

Name of Secretary: H. S. Causby.  
 Name of Comptroller: P. S. Fagan.  
 Head Office: Toronto, Ont.  
 Mine Office: Mercoal, Alberta.  
 General Manager: H. R. Plommer.  
 Mine Manager: L. G. Chavignaud.  
 Mine Surveyor: L. G. Chavignaud.  
 Overmen: J. Rochester, J. McLellan.  
 Firebosses: R. Deere, H. McQueen, J. Parry, J. Lidgett, J. Keef, Mr. Celli, E. Fregren, J. Herpshaw, J. Price, A. Reynolds.  
 Location of Mine: Secs. 24, 25, 26, Tp. 48, Rge. 22, W. 5th Mer.  
 Thickness of Seam: 11ft. 8in.  
 Inclination of Seam: 35 degrees.  
 Thickness of Cover: Up to 620 feet.  
 Form of Opening: Slope. Size of Slope: 8ft. by 15ft. Depth of Slope: 1,300 feet.  
 Mine on C.N.R.

**Coal Valley Mining Co., Ltd.—  
 Mine No. 1002**

Authorized Capital: \$1,000,000.  
 Name of President: (Mrs.) Annette L. Barry.  
 Name of Directors: C. E. Davignon, W. J. Dick, G. A. Thibault, R. Steele, Annette L. Barry, Hon. A. Blais, A. J. McCormack, G. Ryan.  
 Name of Sec.-Treas.: W. C. Willetts.  
 Head Office: 705 McLeod Building, Edmonton, Alberta.  
 Mine Office: Coal Valley, Alberta.  
 General Manager: W. J. Dick.  
 Mine Manager: A. A. Fraser.  
 Mine Surveyor: A. A. Fraser.  
 Location of Mine: L.S. 16, Sec. 26, Tp. 47, Rge. 20, W. 5th Mer.  
 Thickness of Seam: Open pit.  
 Inclination of Seam: Varies.  
 Form of Opening: Open pit mine.  
 Stripping operation on C.N.R.

**Bryan Hard Coal, Ltd.—Mine No. 1157**

Authorized Capital: \$200,000.  
 Name of President: A. M. Matheson.  
 Name of Directors: D. Millar, B. A. Ogilvie.  
 Name of Sec.-Treas.: G. W. Finlay.  
 Head Office: 309 Agency Bldg., Edmonton, Alberta.  
 Mine Office: Robb, Alberta.  
 Overman: D. Millar.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 13, Sec. 15, Tp. 39, Rge. 21, W. 5th Mer.  
 Thickness of Seam: 10 feet.  
 Inclination of Seam: 36 degrees.  
 Thickness of Cover: 350 feet.  
 Form of Opening: Slope. Size of Slope: 7ft. by 12ft. Depth of Slope: 650 feet.  
 Mine located on C.N.R.

**CROWSNEST AREA**

**West Canadian Collieries, Ltd.—  
 Mine No. 87**

Authorized Capital: \$3,600,000.  
 Name of President: Edouard Rasson.  
 Names of Directors: A. E. Whitmore, Hon. Chas. Dunning, De Gaspe Beau-bien, J. A. Brusset.  
 Name of Sec.-Treas.: Georges Labyt.  
 Head Office: 833 Salisbury House, London, E.C. 2, England.  
 Mine Office: Bellevue, Alberta.  
 General Manager: A. A. Millar.  
 Mine Manager: M. H. Congdon.  
 Mine Surveyors: L. M. Dwarlin, R. G. Foote.  
 Overmen: D. Rees, G. W. Goodwin, D. Hutton, H. Kaye, A. Goodwin.  
 Firebosses: S. Comin, C. Wollney, J. Michayluk, J. R. McLeod, J. Radford, W. Prescott, U. Morris, G. Cousins, A. Grant, C. Young, J. Budda, W. Alexander, J. C. Walsh, A. Emmerson.  
 Location of Mine: L.S. 10, Sec. 20, Tp. 7, Rge. 3, W. 5th Mer.

Thickness of Seam: 12 feet.  
 Inclination of Seam: 10 to 48 degrees.  
 Thickness of Cover: 775 feet.  
 Form of Opening: Adit level.  
 Mine located on C.P.R.

**International Coal & Coke Co., Ltd.—  
 Mine No. 88**

Authorized Capital: \$3,000,000.  
 Name of President: Lorne A. Campbell.  
 Names of Directors: L. A. Campbell, A. L. Johansson, James Buchanan, H. Davidson, James Black, G. M. Warren, H. A. Howard, W. M. Lindsay.  
 Name of Secretary: P. A. Dickieson.  
 Name of Treasurer: J. Emmerson.  
 Mine Office: Coleman, Alberta.  
 General Manager: J. J. McIntyre.  
 Mine Manager: James Kellock.  
 Mine Surveyor: H. E. Hewitt.  
 Overman: A. J. Brown.  
 Firebosses: J. V. Fraser, N. Fleming, B. Bond, A. Jones, J. Moore, A. Tiberghelin, A. J. Phillips, J. Kubin, J. Marconi, T. Mitchell, T. Donaldson, G. Marconi, B. Fontana, L. C. Richards.  
 Location of Mine: L.S. 11, Sec. 8, Tp. 8, Rge. 4, W. 5th Mer.  
 Thickness of Seam: 12 feet.  
 Inclination of Seam: 30 degrees.  
 Thickness of Cover: 2,000 feet.  
 Form of Opening: Slope. Size of Slope: 12ft. by 8ft. Depth of Slope: 3,000 ft.  
 C.P.R. and Truck mine.

**Hillcrest-Mohawk Collieries, Ltd.—  
 Mine No. 133**

Authorized Capital: \$1,250,000.  
 Name of President: Frank P. Turville.  
 Names of Directors: F. P. Turville, E. Richardson, A. Johnston, M. Graves, F. J. Harquail, C. Kemp.  
 Name of Secretary: Frank J. Harquail.  
 Name of Treasurer: Erick Richardson.  
 Head Office: Calgary, Alberta.  
 Mine Office: Bellevue, Alberta.  
 General Superintendent: D. B. Young.  
 Mine Manager: Henry Miller.  
 Mine Surveyor: A. E. Graham.  
 Overmen: J. Ironmonger, J. Curry, J. Shearer.  
 Firebosses: J. McDade, R. Clarke, A. White, L. Luini, J. Griffiths, J. Dudley, J. Maddison, A. Bianchini, M. Bianchini, R. Kerr, S. Lesson, J. Gresl.  
 Location of Mine: Sec. 21, Tp. 7, Rge. 3, W. 5th Mer.  
 Thickness of Seam: 6½ft. to 11ft.  
 Inclination of Seam: 16 to 78 degrees.  
 Thickness of Cover: 800 feet.  
 Form of Opening: Level Drift.  
 C.P.R. and Truck mine.

**Matt Wood—Mine No. 199**

Mine Office: Beaver Mines, Alberta.  
 Overman: M. Wood.  
 Mine Surveyor: Fred Utley.  
 Location of Mine: L.S. 10, Sec. 3, Tp. 6, Rge. 2, W. 5th Mer.  
 Thickness of Seam: 7 feet.  
 Inclination of Seam: 20 degrees.  
 Thickness of Cover: 70 feet.  
 Form of Opening: Drift.  
 Truck mine.

**McGillivray Creek Coal & Coke Co.,  
 Ltd.—Mine No. 204**

Authorized Capital: \$3,000,000.  
 Name of President: Lorne A. Campbell.  
 Names of Directors: L. A. Campbell, H. A. Thoeny, H. A. Howard, G. M. Warren, W. M. Lindsay, A. L. Johansson.  
 Name of Sec.-Treas.: S. C. Short.  
 Mine Office: Coleman, Alberta.  
 General Manager: J. J. McIntyre.  
 Mine Manager: L. M. McDonald.  
 Mine Surveyor: A. E. Graham.  
 Overmen: H. Hulbert and J. Jackson, Sr.  
 Firebosses: E. Allen, A. Beveridge, A. Galbraith, W. Hopkins, A. Hughes, I.

A. James, W. Lonsbury, R. Morris, A. McCulloch, R. Parry, P. Smith, J. McCulloch, J. Urwin, W. Urwin.  
 Location of Mine: S.W.  $\frac{1}{4}$  L.S. 2, Sec. 17, Tp. 8, Rge. 4, W. 5th Mer.  
 Thickness of Seam: 9 feet.  
 Inclination of Seam: 35 degrees.  
 Thickness of Cover: 1,600 feet.  
 Form of Opening: Slope. Size of Slope: 8ft. by 12ft. Depth of Slope: 4,500 ft.  
 Mine located on C.P.R.

**West Canadian Collieries, Ltd.—  
 Mine No. 396**

Same particulars as for Mine No. 87.  
 Mine Office: Blairmore, Alberta.  
 Mine Manager: H. H. Gardner.  
 Mine Surveyor: T. E. Morgan.  
 Overmen: M. T. Hamilton, R. Blake, J. Davies, R. Oakes, R. Tonge.  
 Firebosses: S. Patterson, W. North, C. C. Millar, Wm. Patterson, S. Price, C. Cartwright, J. Paterson, R. Draper, D. McLafferty, A. Tiberg, A. Rae, E. Blas, J. McIssac, M. Trevelthine, R. T. Blake, R. Shaw.  
 Location of Mine: L.S. 10, Sec. 2, Tp. 8, Rge. 4, W. 5th Mer.  
 Thickness of Seam: 5 to 16 feet.  
 Inclination of Seam: 40 degrees.  
 Thickness of Cover: 1,000 feet.  
 Form of Opening: Adit level.  
 Mine located on C.P.R.

**West Canadian Collieries, Ltd.—  
 Mine No. 1584**

Same particulars as for Mine No. 87.  
 Mine Manager: W. Goodwin.  
 Pit Boss: C. P. McDonald.  
 Fireboss: K. McDonald.  
 Location of Mine: L.S. 15, Sec. 31, Tp. 6, Rge. 3, W. 5th Mer.

**T. O. Neumann—Mine No. 1623**

Mine Office: Pincher Creek, Alberta.  
 Overman: Frank Batchelor.  
 Location of Mine: L.S. 6, Sec. 11, Tp. 5, Rge. 1, W. 5th Mer.  
 Form of Opening: Adit. Size of Slope: 6ft. by 6ft. Depth of Slope: 70 feet.  
 Truck mine.

**DRUMHELLER AREA**

**Rosedale Collieries, Ltd.—Mine No. 346**  
 Authorized Capital: 20,000 shares, no par value.  
 Name of President: John R. Brodie.  
 Names of Directors: J. R. Brodie, B. C. Parker, H. F. Liggins, F. H. Nord, J. F. Harvie.  
 Name of Secretary-Treasurer: J. Frank Harvie.  
 Head Office: 909 Lancaster Building, Calgary, Alberta.  
 Mine Office: Rosedale, Alberta.  
 General Manager: Russell Richards.  
 Mine Manager: T. Rappell.  
 Overmen: D. Bradshaw and Wm. Jones.  
 Mine Surveyor: R. Richards.  
 Firebosses: W. S. Appleby, J. Zambo, A. Sladek, S. Berlando, W. Roberts, J. Strecker.  
 Location of Mine: L.S. 14, Sec. 28, Tp. 28, Rge. 19, W. 4th Mer.  
 Thickness of Seam: 4 to 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 450 feet.  
 Form of Opening: Shaft. Size of Shaft: 11ft. by 15ft. Depth of Shaft: 45 ft.  
 Mine located on C.N.R.

**Midland Coal Mining Co. Ltd.—  
 Mine No. 367**

Authorized Capital: \$50,000.  
 Name of President: Mrs. Lois McMullen.  
 Names of Directors: Mrs. S. L. McMullen, G. T. Richards, W. R. Sandercock.  
 Name of Secretary: S. G. McMullen.  
 Head Office: Midlandvale, Alberta.

Mine Office: Midlandvale, Alberta.  
 General Manager: G. T. Richards.  
 Mine Manager: A. G. Macaulay.  
 Overman: George Nicol.  
 Mine Surveyor: A. G. Macaulay.  
 Firebosses: M. Bobrosky, A. McKinnon, H. Looten, T. Gibson, J. Oxbury, J. Pettit, J. Jubbs, W. Holowatiuk.  
 Location of Mine: L.S. 10 and 11, Sec. 9, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: Up to 520 feet.  
 Form of Opening: Shaft. Size of Shaft: 9ft. by 19ft. Depth of Shaft: 135 feet.  
 Mine located on C.N.R.

**Red Deer Valley Coal Co., Ltd.—  
 Mine No. 402**

Authorized Capital: \$347,100.  
 Name of President: Wm. S. Howland.  
 Names of Directors: Wm. S. Howland, Miss E. Howland, H. J. Scott.  
 Name of Sec.-Treas.: H. J. Scott.  
 Head Office: Drumheller, Alta.  
 Mine Office: Nacmire, Alta.  
 General Manager: H. J. Scott.  
 Mine Manager: I. Potter.  
 Overmen: George Lavis, J. Barrie.  
 Mine Surveyor: Gordon L. Kidd.  
 Firebosses: R. Clack, G. Cumberford, A. Courterelle, C. Atkinson, P. Goods, H. G. Ruffee, A. Hansen.  
 Location of Mine: N.E.  $\frac{1}{4}$  Rd. Allow. Sec. 7, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 5ft. to 6ft.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 180 to 550 feet.  
 Form of Opening: Shaft and Slope: Size of Shaft: 15ft. by 8ft. Depth of Shaft: 185 feet. Size of Slope: 11ft. by 7ft. Depth of Slope: 170 to 650 feet.  
 Mine located on C.P.R.

**Commander Coal Co.—Mine No. 422**

Name of President: Dr. O. H. Patrick.  
 Name of Sec.-Treas.: Brig. L. Patrick.  
 Head Office: Calgary, Alberta.  
 Mine Office: Drumheller, Alberta.  
 Mine Manager: H. Wilton-Clark.  
 Mine Surveyor: H. Wilton-Clark.  
 Mine Overman: D. Mayoh.  
 Firebosses: W. Morse, R. Halbert, W. Dropko, J. Page, R. Raisbeck, A. Thomson.  
 Location of Mine: L.S. 5, Sec. 9, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 150 feet.  
 Form of Opening: Shaft. Size of Shaft: 12ft. by 20ft. Depth of Shaft: 166 ft.  
 Mine located on C.P.R.

**Rosedale Collieries, Ltd. (Star Mine)  
 —Mine No. 436**

Same particulars as for No. 346.  
 Mine Office: Aerial, Alberta.  
 Manager: W. Hibbert.  
 Overman: D. Jones.  
 Firebosses: I. C. Radocy, E. Davies, T. Sirko, K. Radocy, C. Levesque.  
 Location of Mine: S.E.  $\frac{1}{4}$  L.S. 7, Sec. 28, Tp. 28, Rge. 19, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 150 feet.  
 Form of Opening: Level. Size of Opening: 6ft. by 9ft.  
 Mine located on C.N.R.

**Newcastle Collieries, Ltd.—Mine No. 620**

Authorized Capital: \$300,000.  
 Name of President: Wilson Gouge.  
 Names of Directors: Mrs. R. E. Coyle, James Dewar, Jesse Gouge, Willson Gouge.  
 Name of Secretary-Treasurer: Jesse Gouge.  
 Head Office: Drumheller, Alberta.  
 Mine Office: Newcastle, Alberta.

General Manager: Jesse Gouge.  
 Mine Manager: J. Robertson.  
 Mine Surveyor: J. Robertson.  
 Overman: J. McCutcheon.  
 Firebosses: W. Henry, A. Armstrong, C. Dunn, J. Farmer, R. Forshaw, E. Harris.  
 Location of Mine: L.S. 14, Sec. 3, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 230 feet.  
 Form of Opening: Shaft. Size of Shaft: 8ft. by 11ft. 10½in. Depth of Shaft: 110 feet.  
 Mine located on C.N.R.

**Mape Leaf Minerals, Ltd.—Mine No. 728**  
 Authorized Capital: \$500,000.  
 Name of President: Wilson Gouge.  
 Names of Directors: Wilson Gouge, Jesse Gouge, Helen Gibbons.  
 Name of Secretary-Treasurer: Jesse Gouge.  
 Head Office: Drumheller, Alberta.  
 Mine Office: Willow Creek P.O., Alberta.  
 General Manager: Jesse Gouge.  
 Mine Manager: Arch. K. Burrell.  
 Mine Surveyor: Allan Hamilton.  
 Overman: Arch. K. Burrell.  
 Fireboss: Frank Kane.  
 Location of Mine: L.S. 13, Sec. 32, Tp. 27, Rge. 18, W. 4th Mer.  
 Thickness of Seam: 5ft. 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Drift.  
 Mine located on C.P.R.

**Ideal Coal Co., Ltd.—Mine No. 844**  
 Authorized Capital: \$150,000.  
 Name of President: Thomas M. McGuckie.  
 Name of Directors: M. Bender, M. McGuckie.  
 Name of Sec.-Treas.: Mildred Bender.  
 Mine Office: Wayne, Alberta.  
 Name of Manager: Thomas M. McGuckie.  
 Mine Surveyor: Alex. Higgins.  
 Overman: Nick Surrendi.  
 Firebosses: Mike White, Martin McGuckie.  
 Location of Mine: L.S. 16, Sec. 1, Tp. 28, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 400 feet.  
 Form of Opening: Slope. Size of Slope: 7ft. by 14ft. Depth of Slope: 100 ft.  
 Mine located on C.N.R.

**O. W. Whittaker—Mine No. 1117**  
 Mine Office: Beynon, Alberta.  
 Mine Manager: O. W. Whittaker.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: L.S. 5, Sec. 6, Tp. 27, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 3ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 feet.  
 Form of Opening: Slope.  
 Truck mine.

**Brilliant Coal Company—Mine No. 1258**  
 Mine Office: Drumheller, Alberta.  
 Mine Manager: R. Dunn.  
 Overman: J. Saunt.  
 Mine Surveyor: Gordon L. Kidd.  
 Firebosses: J. Clozza, J. Wakaruk, T. McNeil, R. Stocco.  
 Location of Mine: L.S. 15, Sec. 10, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 400 to 450 feet.  
 Form of Opening: Shaft and slope. Size of shaft: 8ft. by 12ft. Depth of Shaft: 120 feet. Size of Slope: 6ft. by 8ft. Depth of Slope: 450 feet.  
 Mine located on C.N.R.

**Saskatchewan Federated Co-operatives, Ltd.—Mine No. 1299**

Authorized Capital: \$50,000.  
 Name of President: Geo. Urwin.  
 Name of Secretary: Robert McKay.  
 Name of Treasurer: H. L. Smith.  
 Head Office: Saskatoon, Saskatchewan.  
 Mine Office: East Coulee, Alberta.  
 General Manager: Robert McKay.  
 Mine Manager: W. Barclay.  
 Mine Surveyor: Gordon L. Kidd.  
 Overman: John Young.  
 Firebosses: Wm. McFegan, Michael Otrasek.  
 Location of Mine: L.S. 2, Sec. 32, Tp. 27, Rge. 18, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 300 feet.  
 Form of Opening: Drift 6½ft. by 13ft. Slope. Size of Slope: 6ft. by 8ft. Depth of Slope: 300 feet.  
 Mine located on C.P.R.

**Hy-Grade Coal Mining Co., Ltd.—Mine No. 1421**

Authorized Capital: \$100,000.  
 Name of President: Robert McKay.  
 Names of Directors: R. MacKay, Geo. Urwin, F. J. Whitlock.  
 Name of Secretary-Treasurer: F. J. Whitlock.  
 Mine Office: Drumheller, Alberta.  
 Mine Manager: John T. Burton.  
 Overman: P. J. Murphy.  
 Mine Surveyor: A. G. Macaulay.  
 Firebosses: W. Menzies, N. Blackett, G. Wheatcroft, J. Owen, J. Taylor, G. Unsworth, F. Ellison, F. Keough.  
 Location of Mine: L.S. 13, Sec. 11, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 3½ to 9 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 400 feet.  
 Form of Opening: Shaft. Size of Shaft: 8ft. by 15ft. Depth of Shaft: 88 feet.  
 Mine located on C.N.R.

**The Monarch Coal Mining Co., Ltd.—Mine No. 1473**

Authorized Capital: \$102,500.  
 Name of President: E. A. Lovett.  
 Names of Directors: E. A. Lovett, H. R. Narraway, O. I. Gilbert, T. C. Boyd, Donald Macneil.  
 Name of Sec.-Treas.: H. R. Narraway.  
 Head Office: Calgary, Alberta.  
 Mine Office: Drumheller, Alberta.  
 General Manager: E. A. Lovett.  
 Mine Manager: T. Campbell.  
 Mine Surveyor: A. Wilson.  
 Overman: W. McDonald.  
 Firebosses: F. Simpson, G. Anderson, E. Marsh, A. Black, J. Fulton, H. Roberts.  
 Location of Mine: L.S. 7, Sec. 8, Tp. 29, Rge. 20, W. 4th Mer.  
 Thickness of Seam: 5ft. to 6ft.  
 Inclination of Seam: Undulating.  
 Thickness of Cover: Up to 550 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 9ft. Depth of Slope: 150 feet.  
 Mine on C.P.R.

**Regal Coal Co., Ltd. (Atlas Coal Mine)—Mine No. 1484**

Authorized Capital: \$20,000.  
 Name of President: Dr. O. H. Patrick.  
 Name of Sec.-Treas.: Brig. L. Patrick.  
 Head Office: 807 Lancaster Bldg., Calgary, Alberta.  
 Mine Office: East Coulee, Alberta.  
 General Manager: Brig. L. Patrick.  
 Mine Manager: A. Wilson.  
 Overman: John Gallagher.  
 Mine Surveyor: Andrew Wilson.  
 Firebosses: Jas. Raisbeck, John Bachynski, Alfred Andrew, James Tennant, Carl Marshall.  
 Location of Mine: L.S. 13, Sec. 21, Tp. 27, Rge. 18, W. 4th M.

Thickness of Seam: 5ft. 2in.  
Inclination of Seam: Flat (slightly undulating).  
Thickness of Cover: 350 feet.  
Form of Opening: Drift.  
Mine on C.P.R.

**Murray Collieries, Ltd.—Mine No. 1491**  
Authorized Capital: \$100,000.  
Name of President: H. K. Reed.  
Names of Directors: H. K. Reed, H. H. McVeigh.  
Name of Secretary-Treasurer: H. K. Reed.  
Mine Office: East Coulee, Alberta.  
General Manager: H. H. McVeigh.  
Mine Manager: Hugh G. McKinnon.  
Overman: T. McDonald.  
Mine Surveyor: Gordon L. Kidd.  
Firebosses: J. Cotterill, R. Steven, Robt. Stevenson, Wm. Shephard, Robt. Anderson, Stanley Mather.  
Location of Mine: S.E.  $\frac{1}{4}$ , Sec. 29, Tp. 27, Rge. 18, W. 4th Mer.  
Thickness of Seam: 5½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 300 feet.  
Form of Opening: Tunnel. Size of Opening: 6ft. by 12 ft.  
Mine on C.P.R.

**Western Gem & Jewel Collieries, Ltd.—Mine No. 1493**  
Authorized Capital: \$750,000.  
Name of President: Alex. Robertson.  
Names of Directors: W. P. Gamble, R. K. Northey, D. C. Henderson, D. M. Henderson, A. Robertson, H. H. Albright.  
Name of Sec.-Treas.: H. H. Albright.  
Head Office: 607 Lancaster Bldg., Calgary, Alberta.  
Mine Office: Cambria, Alberta.  
General Manager: D. C. Henderson.  
Mine Manager: N. Howells.  
Mine Surveyor: Nathaniel Howells.  
Overman: T. Gordon.  
Firebosses: F. Zaputil, R. Niblett, J. Kusnir, W. Young, W. Kay.  
Location of Mine: L.S. 6 and 7, Sec. 15, Tp. 28, Rge. 19, W. 4th Mer.  
Thickness of Seam: 5 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 400 feet.  
Form of Opening: Adit.  
Mine located on C.P.R.

**Aetna Coal Co.—Mine No. 1511**  
Mine Office: East Coulee, Alberta.  
Overman: P. M. Ramsay.  
Mine Surveyor: Gordon L. Kidd.  
Location of Mine: L.S. 1, Sec. 22, Tp. 28, Rge. 19, W. 4th Mer.  
Thickness of Seam: 7ft. 4in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 150 feet.  
Form of Opening: Drift.  
Mine on C.P.R.

**The Minute Coal Co.—Mine No. 1520**  
Name of Secretary-Treasurer: J. A. McKenzie.  
Mine Office: Drumheller, Alberta.  
General Manager: J. A. McKenzie.  
Overman: B. T. Brooks.  
Mine Surveyor: A. G. Macaulay.  
Location of Mine: L.S. 7, Sec. 14, Tp. 29, Rge. 20, W. 4th Mer.  
Thickness of Seam: 5½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 200 feet.  
Form of Opening: Tunnel. Size of Tunnel: 5ft. by 6ft.  
C.N.R. and Truck mine.

**Castle Coal Co., Ltd.—Mine No. 1544**  
Authorized Capital: \$20,000.  
Name of President: Mr. Gordon Wilson.  
Name of Directors: G. Wilson, Chris Mikkleson, F. Naylor, John Blair.  
Name of Sec.-Treas.: Fred Naylor.  
Mine Office: Wayne, Alberta.

General Manager: Fred Naylor.  
Mine Manager: J. Clyne.  
Surveyor: Gordon L. Kidd.  
Overman: J. Clyne.  
Location of Mine: L. S. 16. Sec. 7, Tp. 28, Rge. 19, W. 4th Mer.  
Thickness of Seam: 6 feet.  
Inclination of Seam: N.E. 20 degrees.  
Thickness of Cover: 200 feet.  
Form of Opening: Slope. Size of Slope: 8 by 10 feet. Depth of Slope: 215 feet.  
C.P.R. and C.N.R. mine.

**Sovereign Coal Co., Ltd.—Mine No. 1570**  
Mine Office: Wayne, Alberta.  
General Manager: J. Redpath.  
Overman: J. Redpath.  
Mine Surveyor: A. G. Macaulay.  
Location of Mine: N.E.  $\frac{1}{4}$  L.S. 8, Sec. 7, Tp. 28, Rge. 19, W. 4th Mer.  
Thickness of Seam: 8 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 300 feet.  
Form of Opening: Slope. Size of Slope: 8ft. by 6ft. Depth of Slope: 38 feet.  
Mine on C.N.R.

**The Monarch Coal Mining Co., Ltd.—Mine No. 1573**  
Same particulars as for Mine No. 1473.  
Mine Office: East Coulee, Alberta.  
Mine Surveyor: A. Wilson.  
Overman: J. Harries.  
Firebosses: R. Cowan, P. Melson, P. Hutchison.  
Location of Mine: S.E.  $\frac{1}{4}$  Sec. 20, Tp. 27, Rge. 18, W. 4th Mer.  
Thickness of Seam: 4½-5 feet.  
Inclination of Seam: Undulating.  
Thickness of Cover: Up to 400 feet.  
Form of Opening: Drift. Size of Opening: 6ft. by 10ft.  
Mine on C.P.R.

**Arcadia Coal Mines, Ltd.—Mine No. 1589**  
Name of President: B. K. Bullock.  
Name of Sec.-Treas.: J. V. H. Milvain.  
Head Office: 405 McLean Block, Calgary, Alberta.  
Mine Office: East Coulee, Alberta.  
General Manager: B. K. Bullock.  
Mine Manager: Peter Barclay.  
Mine Surveyor: Gordon L. Kidd.  
Firebosses: J. Metcalf, Alfred Wolff.  
Location of Mine: L.S. 16, Sec. 7, Tp. 28, Rge. 18, W. 4th Mer.  
Thickness of Seam: 3 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 300 feet.  
Form of Opening: Level entry.  
Mine located on C.N.R.

**H. S. Chambers—Mine No. 1599**  
Mine Office: Drumheller, Alberta.  
Overman: H. S. Chambers.  
Mine Surveyor: A. G. Macaulay.  
Location of Mine: Sec. 22, Tp. 28, Rge. 18, W. 4th Mer.  
Thickness of Seam: 3 feet.  
Inclination of Seam: Horizontal.  
Stripping operation. Truck mine.

#### EDMONTON AREA

**E. Woytowich & M. Pozniak—Mine No. 29**  
Mine Office: Rabbit Hill, Alberta.  
Overman: L. Scott.  
Mine Surveyor: L. C. Stevens.  
Location of Mine: L.S. 11, Sec. 25, Tp. 51, Rge. 25, W. 4th Mer.  
Thickness of Seam: 4½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 150 feet.  
Form of Opening: Slope. Size of Slope: 7ft. by 7ft. Depth of Slope: 60 feet.  
Truck mine.

**Ottewell Coal Co.—Mine No. 91**

Authorized Capital: \$10,000.  
 Mine Office: Clover Bar, Alberta.  
 General Manager: W. Ottewell.  
 Overman: Sam Finlay.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: S.W.  $\frac{1}{4}$  L.S. 4, Sec. 17,  
 Tp. 53, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 80 feet.  
 Form of Opening: Shaft. Size of Shaft:  
 8ft. by 10 ft. Depth of Shaft: 85 feet.  
 Truck mine.

**Great West Coal Co., Ltd.—Mine No. 99**

Authorized Capital: \$150,000.  
 Name of President: A. C. Dunn.  
 Names of Directors: A. C. Dunn, Mayne  
 Reid, W. S. Cupples.  
 Name of Secretary-Treasurer: Thomas S.  
 Campbell.  
 Head Office: 10117 100A St., Edmonton,  
 Alberta.  
 Mine Office: Clover Bar, Alberta.  
 General Manager: A. C. Dunn.  
 Mine Manager: Robert Dalziel.  
 Mine Surveyor: A. C. Dunn.  
 Overman: Angus Park.  
 Firebosses: J. Reed, R. Chalmers, W.  
 Dalzell, W. Thomson, G. Muir.  
 Location of Mine: S.E.  $\frac{1}{4}$  L.S. 10, Sec. 7,  
 Tp. 53, Rge. 23, W. 4th Mer.  
 Thickness of Seam: 4 to 6½ feet.  
 Thickness of Cover: 130 to 210 feet.  
 Inclination of Seam: Horizontal.  
 Form of Opening: Two slopes and two  
 shafts. Size of Main Slope: 10ft. by  
 6ft. Depth of Slope: 132 feet.  
 C.N.R. and Truck Mine.

**Sundance Mines, Ltd.—Mine No. 129**

Authorized Capital: \$20,000.  
 Name of President: Paul H. Cote.  
 Name of Directors: Paul H. Cote, Cyril  
 Tucker.  
 Name of Sec.-Treas.: E. E. Bishop.  
 Mine Office: Cardiff, Alberta.  
 Overman: P. H. Cote.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 16, Sec. 23, Tp. 55,  
 Rge. 25, W. 4th Mer.  
 Thickness of Seam: 8 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 35 feet.  
 Open pit. Truck mine.

**Banner Coals, Ltd.—Mine No. 428**

Authorized Capital: \$20,000.  
 Name of President: H. O. Patriquin.  
 Name of Directors: E. A. Mills and J. B.  
 Starky.  
 Name of Sec.-Treas.: E. A. Mills.  
 Head Office: 10631 92nd St., Edmonton,  
 Alberta.  
 Mine Office: Carbondale, Alberta.  
 General Manager: J. B. Starky.  
 Mine Manager: James M. Clyne.  
 Mine Surveyor: L. C. Stevens.  
 Overman: Dave Muir.  
 Firebosses: Nels Nielsen, Dave Watson,  
 Charles Crawford.  
 Location of Mine: L.S. 10, Sec. 8, Tp. 55,  
 Rge. 24, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 174 feet.  
 Form of Opening: Shaft. Size of Shaft:  
 15ft. by 9ft. Depth of Shaft: 174 feet.  
 Truck mine and on Northern Alberta Ry.

**Dolinski & Partners—Mine No. 1034**

Mine Office: Edmonton South, Alberta.  
 Overman: H. Molzan.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 6, Sec. 25, Tp. 51,  
 Rge. 25, W. 4th Mer.  
 Thickness of Seam: 4½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 139 feet.  
 Form of Opening: Slope. Size of Slope:

7ft. by 6ft. Depth of Slope: 200 feet.  
 Truck mine.

**Long Coal Co. Ltd.—Mine No. 1098**

Authorized Capital: \$18,000.  
 Name of President: M. L. Vitaly.  
 Name of Director: A. F. Duncan.  
 Name of Sec.-Treas.: Mrs. M. L. Vitaly.  
 Mine Office: Namao, Alberta.  
 Overman: M. L. Vitaly.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 3 and 4, Sec. 31,  
 Tp. 54, Rge. 24, W. 4th Mer.  
 Thickness of Seam: 6 to 8 feet.  
 Inclination of Seam: Horizontal.  
 Form of Opening: Tunnel.  
 Truck mine.

**Mike Sinoski—Mine No. 1233**

Mine Office: South Edmonton.  
 Overman: Stephen Sinoski.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 5, Sec. 25, Tp. 51,  
 Rge. 25, W. 4th M.  
 Thickness of Seam: 4½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 30 to 100 feet.  
 Form of Opening: Slope. Size of Slope:  
 7ft. by 5½ft. Depth of Slope: 84 feet.  
 Truck mine.

**Edmonton Collieries, Ltd.—Mine No. 1266**

Authorized Capital: \$20,000.  
 Name of President: W. Gordon MacKay.  
 Names of Directors: William G. MacKay,  
 C. C. Down.  
 Name of Sec.-Treas.: Harold W. Lawton.  
 Head Office: 10055 101st St., Edmonton,  
 Alberta.  
 Mine Office: Namao, Alberta.  
 General Manager: William G. MacKay.  
 Overman: A. Johnstone.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: N.W.  $\frac{1}{4}$  Sec. 36, Tp.  
 54, Rge. 25, W. 4th Mer.  
 Thickness of Seam: 9 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 65 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 4ft. Depth of Slope: 380 feet.  
 Located on Northern Alberta Railway;  
 also Truck mine.

**Ellerslie Collieries—Mine No. 1297**

Mine Office: South Edmonton, Alberta.  
 Overman: J. Hutton.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 1, Sec. 26, Tp. 51,  
 Rge. 25, W. 4th Mer.  
 Thickness of Seam: 4½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 100 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 7ft. Depth of Slope: 235 feet.  
 Truck mine.

**Samis Collieries, Ltd.—Mine No. 1316**

Name of Secretary: D. I. Samis.  
 Name of Treasurer: K. E. Samis.  
 Mine Office: Namao, Alberta.  
 General Manager: K. E. Samis.  
 Overman: E. Fawcett.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 6, Sec. 36, Tp. 54,  
 Rge. 25, W. 4th Mer.  
 Thickness of Seam: 7½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 75 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 6ft. Depth of Slope: 150 feet.  
 Truck mine.

**Riddock & Horkulak (Twin City Coal Co.)—Mine No. 1352**

Mine Office: Rabbit Hill, Alberta.  
 Overman: A. H. Horkulak.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 8, Sec. 26, Tp. 51,  
 Rge. 25, W. 4th Mer.  
 Thickness of Seam: 4 feet.



Inclination of Seam: Horizontal.  
Thickness of Cover: 100 feet.  
Form of Opening: Slope. Size of Slope:  
6ft. by 6ft. Depth of Slope: 230 feet.  
Truck mine.

**Red Hot Coal Co., Ltd.—Mine No. 1357**  
Authorized Capital: \$23,000.  
Name of President: W. Fridel.  
Names of Directors: J. Tworek, C. Bruskiewicz, S. Kubeczka, J. Gorski.  
Name of Secretary-Treasurer: J. Lang.  
Mine Office: Forest Heights, Edmonton, Alberta.  
General Manager: William Fridel.  
Mine Manager: John Thomson.  
Mine Surveyor: L. C. Stevens.  
Location of Mine: River Lot 33, Edmonton Settlement.  
Thickness of Seam: 4 ft. 6in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 180 feet.  
Form of Opening: Slope. Size of Slope:  
6½ft. by 5 feet. Depth of Slope:  
200 feet.  
Truck mine.

**Beverly Coal Co., Ltd.—Mine No. 1366**  
Authorized Capital: \$20,000.  
Name of President: L. H. Davidson.  
Names of Directors: L. H. Davidson, A. V. Carlson, Thos. E. Hays.  
Name of Secretary: J. McCartney.  
Name of Treasurer: Thos. E. Hays.  
Mine Office: Beverly, Alberta.  
General Manager: L. H. Davidson.  
Mine Manager: Thomas Brown.  
Overman: J. F. Brown.  
Mine Surveyor: L. C. Stevens.  
Firebosses: A. L. Brown, W. T. Price.  
Location of Mine: L.S. 6, Sec. 13, Tp. 53, Rge. 24, W. 4th Mer.  
Thickness of Seam: 4ft. 4in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 145 feet.  
Form of Opening: Vertical shaft. Size of Shaft: 14ft. by 8ft. Depth of Shaft: 145 feet.  
Truck mine.

**Ottewell Coal Co.—Mine No. 1393**  
Same particulars as for Mine No. 91.  
Overman: W. Ottewell.  
Location of Mine: Block X N.E. ¼, Sec. 36, Tp. 52, Rge. 24, W. 4th Mer.  
Thickness of Seam: 4½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 85 feet.  
Form of Opening: Shaft. Size of Shaft: 8ft. by 9ft. Depth of Shaft: 85 feet.  
Truck mine.

**Pine Creek Coal Co.—Mine No. 1419**  
Mine Office: South Edmonton, Alberta.  
Overman: Albert Williams.  
Mine Surveyor: L. C. Stevens.  
Location of Mine: L.S. 4, Sec. 25, Tp. 51, Rge. 25, W. 4th Mer.  
Thickness of Seam: 4ft. 6in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 110 feet.  
Form of Opening: Shaft. Size of Shaft: 6ft. by 6ft. Depth of Shaft: 90 feet.  
Truck mine.

**Riverdale Coal Co., Ltd.—Mine No. 1463**  
Authorized Capital: \$10,000.  
Name of President: John Mather.  
Names of Directors: John Mather, Anne Mather.  
Name of Secretary: John Mather.  
Name of Treasurer: Anne Mather.  
Head Office: 10311 Saskatchewan Drive, Edmonton, Alberta.  
Mine Office: Nampao, Alberta.  
Overman: R. H. Mather.  
Mine Surveyor: David Jones.  
Fireboss: M. Kryskow.  
Location of Mine: N.E. cor. L.S. 14, Sec. 5, Tp. 55, Rge. 24, W. 4th Mer.  
Thickness of Seam: 5 feet.

Inclination of Seam: Horizontal.  
Thickness of Cover: 90 feet.  
Form of Opening: Tunnel.  
Truck mine.

**D. J. Gwilliam—Mine No. 1496**  
Mine Office: Nampao, Alberta.  
General Manager: D. J. Gwilliam.  
Overman: W. E. Williams.  
Mine Surveyor: L. C. Stevens.  
Location of Mine: L.S. 3, Sec. 6, Tp. 55, Rge. 24, W. 4th Mer.  
Thickness of Seam: 6 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 60 feet.  
Form of Opening: Drift. Size of Drift: 6ft. by 7ft.  
Truck mine.

**K. Nimko—Mine No. 1560**  
Mine Office: Edmonton South, Alberta.  
Overman: K. Nimko.  
Mine Surveyor: L. C. Stevens.  
Location of Mine: L.S. 11, Sec. 25, Tp. 51, Rge. 25, W. 4th Mer.  
Thickness of Seam: 4½ feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 125 feet.  
Form of Opening: Slope. Size of Slope: 6ft. by 6ft. Depth of Slope: 145 feet.  
Truck mine.

**Egg Lake Coal Co.—Mine No. 1582**  
Mine Office: Morinville, Alberta.  
Overman: R. O. Beaupri.  
Mine Surveyor: David Jones.  
Location of Mine: N.E. ¼, Sec. 36, Tp. 56, Rge. 26, W. 4th Mer.  
Thickness of Seam: 6 to 7 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 11 to 16 feet.  
Stripping operations. Truck mine.

**J. B. Starky Co., Ltd.—Mine No. 1626**  
Same particulars as for Mine No. 428.  
Mine Office: R.R. No 2, St. Albert, Alta.  
General Manager: J. B. Starky.  
Mine Manager: W. T. Worthington.  
Mine Surveyor: David Jones.  
Overman: James Burton.  
Firebosses: R. Devoe, F. Parobchak, S. Kendrick.  
Location of Mine: L.S. 4, Sec. 36, Tp. 54, Rge. 25, W. 4th Mer.  
Thickness of Seam: 10 feet.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 70 to 85 feet.  
Form of Opening: Slope. Size of Slope: 7ft. by 7ft. Depth of Slope: 195 feet.  
N.A.R. and Truck mine.

**Dickinson, Knight & Dickinson—Mine No. 1627**  
Mine Office: Carbondale, Alberta.  
Overman: J. Kennedy.  
Mine Surveyor: L. C. Stevens.  
Fireboss: W. Knight.  
Location of Mine: S.E. ¼, Sec. 17, Tp. 55, Rge. 24, W. 4th Mer.  
Thickness of Seam: 5ft. 10in.  
Inclination of Seam: Horizontal.  
Thickness of Cover: 65 feet.  
Truck mine.

**C. F. MacLachlan—Mine No. 1632**  
Mine Office: Edmonton, Alberta.  
Overman: Albert Wheeler.  
Location of Mine: N. ¼ L.S. 8 and 9, Sec. 2, Tp. 53, Rge. 21, W. 4th Mer.  
Thickness of Seam: 7 feet.  
New mine in operation.

**J. Camarta—Mine No. 1635**  
Mine Office: Morinville, Alberta.  
Overman: J. Camarta.  
Location of Mine: L.S. 1, Sec. 32, Tp. 55, Rge. 25, W. 4th Mer.  
Thickness of Seam: 7 feet.  
Inclination of Seam: Horizontal.  
New mine in operation.

**D. Chiarello & Partners—Mine No. 1636**

Mine Office: Legal, Alberta.  
 Overman: D. Chiarello.  
 Location of Mine: L.S. 11 and 14, Sec. 26, Tp. 57, Rge. 25, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Stripping operation. Truck mine.

**J. G. Mucha & J. Laba—Mine No. 1646**

Authorized Capital: \$10,000.  
 Mine Office: Box 4027, South Edmonton.  
 General Manager: J. G. Mucha.  
 Surveyor: L. C. Stevens.  
 Fireboss: J. G. Mucha.  
 Location of Mine: L.S. 12, Sec. 25, Tp. 51, Rge. 25, W. 4th Mer.  
 Thickness of Seam: 3 feet.  
 Inclination of Seam: Horizontal.  
 Strip mine.  
 Truck mine.

**GLEICHEN AREA****Blackfoot Indians—Mine No. 72**

This mine is operated on the Blackfoot Reserve by the Indians, the entire output being disposed of locally. This Reserve is south of Gleichen.  
 Form of Opening: Drift.  
 Truck mine.

**Karl Schnepf—Mine No. 299**

Mine Office: Rosebud, Alberta.  
 Overman: K. J. Schnepf.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: S.  $\frac{1}{2}$  L.S. 4, Sec. 29, Tp. 26, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 3 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 55 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 6ft. Depth of Slope: 160 feet.  
 Truck mine.

**H. Castella & Sons—Mine No. 1265**

Mine Office: Standard, Alberta.  
 Overman: J. Castella.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: L.S. 5, Sec. 11, Tp. 25, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 3ft. 10in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 80 feet.  
 Form of Opening: Slope. Size of Slope: 5ft. by 9ft. Depth of Slope: 110 feet.  
 Truck mine.

**John Guiney—Mine No. 1431**

Mine Office: Rosebud, Alberta.  
 Overman: C. J. Guiney.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: L.S. 3 and 6, Sec. 29, Tp. 26, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 3 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 60 to 90 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 6ft. Depth of Slope: 30 feet.  
 Truck mine.

**Wm. McMillan—Mine No. 1521**

Mine Office: Rosebud, Alberta.  
 Overman: Alex. McMillan.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: L.S. 14, Sec. 20, Tp. 26, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 3½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 97 feet.  
 Form of Opening: Slope. Size of Slope: 5ft. by 7ft. Depth of Slope: 90 feet.  
 Truck mine.

**HALCOURT AREA****Baldwin Collieries—Mine No. 651**

Mine Office: Dimsdale, Alberta.  
 Overman: A. Thomson.  
 Mine Surveyor: David Jones.

Location of Mine: L. S. 15, Sec. 35, Tp. 70, Rge. 7, W. 6th Mer.  
 Thickness of Seam: 2ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 90 feet.  
 Form of Opening: Tunnel.  
 Truck mine.

**LETHBRIDGE AREA****A. Razzolini—Mine No. 56**

Mine Office: Magrath, Alberta.  
 Overman: Albert Razzolini.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: N.  $\frac{1}{2}$  of S.W.  $\frac{1}{4}$  L.S. 3, Sec. 7, Tp. 7, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 2ft. 3in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 125 feet.  
 Form of Opening: Slope. Size of Slope: 5ft. by 6ft. Depth of Slope: 230 feet.  
 Truck mine.

**George Rollingson—Mine No. 738**

Mine Office: Lethbridge, Alberta.  
 Overman: George Rollingson.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 2, Sec. 11, Tp. 8, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 22 inches.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Drift.  
 Truck mine.

**Forsyth, Fairbanks, Varga & File—Mine No. 1086**

Mine Office: Lethbridge, Alberta.  
 Overman: J. Forsyth.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 5, Sec. 8, Tp. 7, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 3½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: Up to 90 feet.  
 Form of Opening: Drift. Size of Drift: 6ft. by 7ft.  
 Truck mine.

**J. C. Chester—Mine No. 1095**

Mine Office: Lethbridge, Alberta.  
 Mine Surveyor: J. F. Hamilton.  
 Overman: D. J. Crabb.  
 Fireboss: J. Chemmottle.  
 Location of Mine: L.S. 9, Sec. 30, Tp. 9, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 300 feet.  
 Form of Opening: Slope. Size of Slope: 7ft. by 6ft. Depth of Slope: 257 feet.  
 Truck and C.P.R. mine.

**Lethbridge Collieries, Ltd.—Mine No. 1263**

Authorized Capital: \$1,400,000.  
 Name of President: L. Munroe.  
 Names of Directors: C. S. Donaldson, E. A. Lovett, Wm. Toole, E. A. Whitmore, L. Munroe.  
 Name of Secretary: C. T. Webb.  
 Name of Treasurer: R. V. Maynard.  
 Head Office: 137 9th Avenue East, Calgary, Alberta.  
 Mine Office: Shaughnessy, Alberta.  
 General Manager: J. M. Davidson.  
 Mine Manager: A. G. Donaldson.  
 Mine Surveyor: R. D. Livingstone.  
 Overman: F. Thackray.  
 Firebosses: A. Birse, W. Goodrick, O. Krosso, S. Yorko, H. Evans, M. Boychuk, C. MacAulay.  
 Location of Mine: L.S. 11, Sec. 30, Tp. 10, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 263 feet.  
 Form of Opening: Shaft. Size of Shaft: 9ft. by 24ft. Depth of Shaft: 263 feet.  
 Mine located on C.P.R.

**Lethbridge Collieries, Ltd.—Mine No. 1464**

Same particulars as for Mine No. 1263.  
 Mine Office: Lethbridge, Alberta.  
 Mine Manager: J. Brady.  
 Overman: H. Tyrer.  
 Firebosses: D. Coutts, R. Dobson, W. Strickland, G. Coutts, A. McColl, J. Peta.  
 Location of Mine: L.S. 3, Sec. 2, Tp. 9, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: 1 in 75 N.8°W.  
 Thickness of Cover: 400 feet.  
 Form of Opening: Shaft. Size of Shaft: 18ft. by 20ft. Depth of Shaft: 359 ft.  
 Mine located on C.P.R.

**J. J. Hamilton Coal Co.—Mine No. 1581**

Mine Office: Lethbridge, Alberta.  
 Mine Manager: J. J. Hamilton.  
 Overman: E. Tyrer.  
 Mine Surveyor: J. F. Hamilton.  
 Firebosses: D. Howell, F. Peta.  
 Location of Mine: L.S. 11, Sec. 24, Tp. 9, Rge. 22, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: 2½ N. 47°W.  
 Thickness of Cover: 470 feet.  
 Form of Opening: Shaft. Size of Shaft: 9ft. by 8ft. Depth of Shaft: 235 feet.  
 C.P.R. and Truck mine.

**MILK RIVER AREA****Thomas Taylor—Mine No. 1301**

Mine Office: Groton, Alberta.  
 Overman: Thomas Taylor.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 10, Sec. 10, Tp. 3, Rge. 11, W. 4th Mer.  
 Thickness of Seam: 4ft. 4in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 100 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 7ft. Depth of Slope: 120 feet.

**J. J. Mueller—Mine No. 1380**

Mine Office: Masinasin, Alberta.  
 Overman: J. J. Mueller.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: W. ½ L.S. 9, L.S. 10, Sec. 27, Tp. 2, Rge. 12, W. 4th Mer.  
 Thickness of Seam: 3 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 6 feet.  
 Stripping operation. Truck mine.

**MORLEY AREA****B. Ainsley & Sons—Mine No. 1619**

Mine Office: Morley, Alberta.  
 Overman: James Wilkinson.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: Unsurveyed territory.  
 Thickness of Seam: 4 to 6 feet.  
 Inclination of Seam: 20°S.W.  
 Thickness of Cover: 70 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 6ft. Depth of Slope: 87 feet.  
 C.P.R. and Truck mine.

**MOUNTAIN PARK AREA****Mountain Park Coals, Ltd.—Mine No. 282**

Authorized Capital: \$1,042,000.  
 Name of President: Col. Sir Harold Mitchell.  
 Names of Directors: A. N. Scott, M. Reid, T. Dickson, A. Dunn.  
 Name of Sec.-Treas.: G. P. Nance.  
 Head Office: Edmonton, Alberta.  
 Mine Office: Mountain Park, Alberta.  
 General Manager: A. N. Scott.  
 Mine Manager: D. C. Hamilton.  
 Mine Surveyor: Andrew Scott, Jr.  
 Overmen: W. Talbot and H. Simmons.

Firebosses: W. McDonald, R. Roome, H. Roome, J. Hutchinson, J. McMillan, J. Bulat, S. Olesky, J. Chapman.  
 Location of Mine: S.E. ¼, Sec. 33, Tp. 45, Rge. 23, W. 5th Mer.  
 Thickness of Seam: 25 to 30 feet.  
 Inclination of Seam: 29°.  
 Thickness of Cover: 250 to 800 feet.  
 Form of Opening: Slope. Size of Slope: 7ft. by 10ft. Depth of Slope: 558 feet.  
 Mine located on C.N.R.

**Cadomin Coals, Ltd.—Mine No. 693**

Authorized Capital: \$1,200,000.  
 Name of President: H. R. Milner.  
 Names of Directors: A. C. Emery, S. W. Field, H. Riley Jr., H. R. Milner, T. M. Burnett, J. A. McLeod.  
 Name of Sec.-Treasurer: Colin Campbell.  
 Head Office: 418 McLeod Bldg., Edmonton, Alberta.  
 Mine Office: Cadomin, Alberta.  
 General Manager: J. A. McLeod.  
 Mine Manager: N. Melnyk.  
 Overmen: J. Roberts, P. S. Douglas, R. Carr, A. Lister.  
 Mine Surveyor: D. F. MacKinnon.  
 Firebosses: P. Nicholson, P. Carty, S. Chesney, S. Wilson, W. Driega, J. James, H. McKenna, F. Gosney, J. B. Williamson, W. V. Stene.  
 Location of Mine: L.S. 14, Sec. 31, Tp. 46, Rge. 23, W. 5th Mer.  
 Thickness of Seam: 33 feet.  
 Inclination of Seam: 60°.  
 Thickness of Cover: 1 to 50 feet.  
 Form of Opening: Shaft. Size of Shaft: 20ft. by 12ft. Depth of Shaft: 826 feet.  
 Mine located on C.N.R.

**Luscar Coals, Ltd.—Mine No. 905**

Authorized Capital: \$650,000.  
 Name of President: Col. Sir Harold Mitchell.  
 Names of Directors: M. Reid, A. N. Scott, A. Dunn, T. Dickson, G. P. Nance.  
 Name of Sec.-Treas.: G. P. Nance.  
 Head Office: 410 Tegler Bldg., Edmonton, Alberta.  
 Mine Office: Luscar, Alberta.  
 General Manager: A. N. Scott.  
 Mine Manager: A. C. Hnatyshyn.  
 Mine Surveyor: Andrew Scott Jr.  
 Overmen: H. Evans, T. Mather, W. J. Thomas.  
 Firebosses: J. Jones, R. Mitchell, J. Henderson, R. Davies, J. Hogg, R. Baker, V. Baich, P. Mahoney, W. Hughes.  
 Location of Mine: L.S. 7, Sec. 23, Tp. 47, Rge. 24, W. 5th Mer.  
 Thickness of Seam: 30 feet.  
 Inclination of Seam: Up to 90°.  
 Thickness of Cover: Varies.  
 Form of Opening: Slope and Drift. Size of Slope: 11ft. by 8ft. Length of Slope: 2,500 feet. Depth of Slope: 833 feet.  
 Mine on C.N.R.

**NORDEGG AREA****Brazeau Collieries, Ltd.—Mine No. 256**

Authorized Capital: \$4,000,000.  
 Name of President: J. A. Boyd.  
 Names of Directors: John A. Boyd, J. A. Kilpatrick, W. H. Moore, M.P., George R. Cottrell, H. S. Gausby.  
 Name of Sec.-Treasurer: H. S. Gausby.  
 Head Office: Toronto, Ontario.  
 Mine Office: Nordegg, Alberta.  
 General Manager: A. D. Sturrock.  
 Mine Manager: D. Shanks Sr.  
 Overman: J. Touhey.  
 Mine Surveyor: T. Hodson.  
 Firebosses: G. Stewart, G. McQueen, R. Whyte, F. Kozmenluk, O. Edwards, J. Henderson.  
 Location of Mine: L.S. 13, Sec. 22, Tp. 40, Rge. 15, W. 5th Mer.  
 Thickness of Seam: 13 feet.

Inclination of Seam: 12 degrees.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Slope. Size of Slope:  
 10ft. by 12ft. Depth of Slope: 3,400  
 feet.  
 Mine located on C.N.R.

**Brazeau Collieries, Ltd.—Mine No. 1585**  
 Same particulars as for Mine No. 256.  
 Mine Manager: A. McMullen.  
 Overman: J. Hall.  
 Mine Surveyor: T. Hodson.  
 Firebosses: J. White, D. Duncan, H. Wil-  
 liams, F. Marasco.  
 Location of Mine: L.S. 13, Sec. 22, Tp. 40,  
 Rge. 15, W. 5th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: 12 degrees.  
 Thickness of Cover: 300 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 12ft. Depth of Slope: 4,000 ft.  
 Mine located on C.N.R.

#### PAKOWKI AREA

**William Raeder—Mine No. 1318**  
 Mine Office: Elkwater, Alberta.  
 Overman: Wm. Raeder.  
 Mine Surveyor: E. Ashburner.  
 Location of Mine: L.S. 7 and 10, Sec. 23,  
 Tp. 8, Rge. 3, W. 4th Mer.  
 Thickness of Seam: 5ft 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Drift.

#### PEKISKO AREA

**G. C. Davies—Mine No. 1516**  
 Mine Office: Priddis, Alberta.  
 Overman: G. C. Davies.  
 Mine Surveyor: R. Hamilton.  
 Location of Mine: L.S. 10, Sec. 4, Tp. 22,  
 Rge. 3, W. 5th Mer.  
 Thickness of Seam: 3ft. 4in.  
 Inclination of Seam: 12°.  
 Thickness of Cover: 152 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 6½ft. Depth of Slope: 600 ft.  
 Truck mine.

**E. Payne—Mine No. 1638**  
 Mine Office: Turner Valley, Alberta.  
 Location of Mine: L.S. 7, Sec. 24, Tp.  
 19, Rge. 6, W. 5th Mer.  
 New mine just opened; no particulars.

#### PEMBINA AREA

**Lakeside Coals, Ltd.—Mine No. 419**  
 Authorized Capital: \$660,000.  
 Name of President: E. A. McBain  
 (deceased).  
 Names of Directors: E. A. McBain (de-  
 ceased), W. W. McBain, W. A. McBain.  
 Name of Sec.-Treas.: W. A. McBain.  
 Head Office: Edmonton, Alberta.  
 Mine Office: Wabamun, Alberta.  
 General Manager: Wm. Foster.  
 Mine Manager: J. Vivyurka.  
 Mine Surveyor: W. Foster.  
 Firebosses: E. A. Bryant, J. Schimyzek,  
 R. Stratton.  
 Location of Mine: N. ½ Sec. 9, Tp. 53,  
 Rge. 4, W. 5th Mer.  
 Thickness of Seam: 7½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 60 to 80 feet.  
 Form of Opening: Tunnel.  
 C.N.R. and Truck mine.

**Mount Royal Collieries, Ltd.—Mine  
 No. 1592**  
 Mine Office: Stony Plain, Alberta.  
 Overman: R. Woods.  
 Location of Mine: E. ½, Sec. 30, Tp. 52,  
 Rge. 4, W. 5th Mer.  
 Thickness of Seam: 20 feet.  
 Inclination of Seam: Horizontal.  
 Stripping operation. Truck mine.

**Wm. Robinson—Mine No. 1596**  
 Mine Office: Entwistle, Alberta.  
 Overman: G. Ostertag.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 5, Sec. 34, Tp. 33,  
 Rge. 7, W. 5th Mer.  
 Thickness of Seam: 28 feet  
 Inclination of Seam: Horizontal.  
 Stripping operation. Truck mine.

**Lake Isle Coal Mine—Mine No. 1630**  
 Mine Office: Gainford, Alberta.  
 Overman: H. D. Hunt.  
 Location of Mine: S.W. ¼, Sec. 31, Tp.  
 53, Rge. 5, W. 5th M.  
 Thickness of Seam: 8ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 feet.  
 Form of Opening: Strip mine.  
 Truck mine.

**H. H. Wright—Mine No. 1637**  
 Mine Office: Genesee, Alberta.  
 Location of Mine: L.S. 11, Sec. 33, Tp. 49,  
 Rge. 2, W. 5th Mer.  
 New mine just opened; no particulars.

**Strawberry Creek Coal Co. Ltd.—  
 Mine No. 1644**  
 Authorized Capital: \$20,000.  
 Name of President: Leslie G. Karsay.  
 Names of Directors: L. G. Karsay, Leslie  
 Liba, Louis Kazinsky.  
 Name of Secretary: William Fodor.  
 Name of Treasurer: Elaine Liba.  
 Mine Office: Warburg, Alberta.  
 Head Office: Warburg, Alberta.  
 Mine Manager: Thos. J. Shaw.  
 Mine Surveyor: David Jones.  
 Fireboss: Louis Kazinsky.  
 Location of Mine: S.W. ¼ Sec. 13, Tp.  
 49, Rge. 3, W. 5th Mer.  
 Thickness of Seam: 4 feet 6 ins.  
 Thickness of Cover: 12 to 80 feet.  
 Form of Opening: Slope. Size of Slope:  
 8 by 7 by 7 feet. Depth of Slope:  
 184 feet.  
 C.P.R. and truck mine.

#### PINCHER AREA

**W. B. Rhodes—Mine No. 1440**  
 Mine Office: Lundbreck, Alberta.  
 Overman: W. B. Rhodes.  
 Mine Surveyor: M. H. Congdon.  
 Location of Mine: L.S. 10, Sec. 26, Tp. 1,  
 Rge. 2, W. 5th Mer.  
 Thickness of Seam: 7 feet  
 Inclination of Seam: 70°.  
 Thickness of Cover: 10 feet.  
 Form of Opening: Slope. Size of Slope:  
 6ft. by 7ft. Depth of Slope: 75 feet.  
 Truck mine.

#### REDCLIFF AREA

**AJax Coal Co., Ltd.—Mine No. 772**  
 Mine Office: Medicine Hat, Alberta.  
 Overman: Neil Morrison.  
 Mine Surveyor: Gordon L. Kidd.  
 Location of Mine: L.S. 2, Sec. 5, Tp. 13,  
 Rge. 6, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 200 feet.  
 Form of Opening: Level entry.  
 C.P.R. and Truck mine.

#### ROCHESTER AREA

**Thorhild Coal Co.—Mine No. 1517**  
 Authorized Capital: \$700.  
 Name of Sec.-Treas.: John Libicz.  
 Head Office: Box 44, Thorhild, Alberta.  
 Mine Office: Thorhild, Alberta.  
 Mine Manager: Mike Libicz.  
 Mine Surveyor: David Jones.

Location of Mine: Sec. 12, Tp. 60, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 7 feet.  
 Inclination of Seam: Flat.  
 Thickness of Cover: Up to 25 feet.  
 Form of Opening: Strip mining.  
 Truck and C.P.R. and C.N.R. mine

**North Point Coal Co., Ltd.—Mine No. 1562**

Mine Office: Thorhild, Alberta.  
 Overman: T. Dombroski.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 1, Sec. 11, Tp. 60, Rge. 21, W. 4th Mer.  
 Thickness of Seam: 5½ feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 14 feet.  
 Stripping operation. Truck mine.

**SAUNDERS AREA**

**Bighorn & Saunders Creek Collieries, Ltd.—Mine No. 388**

Authorized Capital: \$300,000.  
 Name of President: Raoul Green.  
 Names of Directors: L. P. Robert, W. H. Pearson, Dean Harrington.  
 Name of Sec.-Treasurer: A. R. Granger.  
 Head Office: Blairmore, Alberta.  
 Mine Office: Saunders, Alberta.  
 Mine Manager: Owen Morgan.  
 Overman: L. G. Gladwin.  
 Mine Surveyor: Owen Morgan.  
 Firebosses: R. Cowley, P. Kelly, C. Foster.  
 Location of Mine: S.E. ¼ L.S. 9, Sec. 24, Tp. 40, Rge. 13, W. 5th Mer.  
 Thickness of Seam: 4ft. 6in.  
 Inclination of Seam: 5 to 8 degrees.  
 Thickness of Cover: 500 feet.  
 Form of Opening: Slope. Size of Slope: 8ft. by 7ft. Depth of Slope: 2,300 ft.  
 C.N.R. and Truck mine.

**Alexo Coal Co., Ltd.—Mine No. 852**

Authorized Capital: \$200,000.  
 Name of President: E. F. Pullen.  
 Names of Directors: E. F. Pullen, Frank Pullen, C. C. Clark.  
 Name of Sec.-Treas.: C. C. Clark.  
 Head Office: 107 Duke St., Toronto, Ontario.  
 Mine Office: Alexo, Alberta.  
 General Manager: E. F. Pullen.  
 Mine Manager: R. Tennant.  
 Mine Surveyor: A. McMullen.  
 Overman: J. Conlin.  
 Firebosses: D. Williamson, R. J. Butts.  
 Location of Mine: L.S. 9, Sec. 27, Tp. 40, Rge. 13, W. 5th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: 7 degrees.  
 Thickness of Cover: 250 feet.  
 Form of Opening: Slope. Size of Slope: 8ft. by 12ft. Depth of Slope: 2,300 ft.  
 Mine located on C.N.R.

**SHEERNESS AREA**

**Chinook Coal Co., Ltd.—Mine No. 443**

Authorized Capital: \$30,000.  
 Name of President: Claude Gallinger.  
 Names of Directors: Claude Gallinger, Mrs. Jean Gallinger, Wilbur Gallinger.  
 Name of Sec.-Treasurer: R. L. Wood.  
 Mine Office: Sheerness, Alberta.  
 General Manager: R. L. Wood.  
 Overman: William Swanson.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 1, Sec. 12, Tp. 29, Rge. 13, W. 4th Mer.  
 Thickness of Seam: 5 to 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 to 14 feet.  
 Stripping operation. Mine located on C.N.R.

**T. G. Ironside & A. Glover—Mine No. 1398**

Mine Office: Hanna, Alberta.  
 Overman: T. G. Ironside.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 12, Sec. 5, Tp. 34, Rge. 13, W. 4th Mer.  
 Thickness of Seam: 4 feet.  
 Stripping operations. Truck mine.

**Sheerness Coal Co., Ltd.—Mine No. 1432**

Authorized Capital: \$10,000.  
 Name of President: Claude Gallinger.  
 Names of Directors: C. Gallinger, Mrs. Jean Gallinger.  
 Name of Sec.-Treasurer: R. L. Wood.  
 Mine Office: Sheerness, Alberta.  
 General Manager: R. L. Wood.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 5, Sec. 19, Tp. 29, Rge. 12, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 feet.  
 Stripping operation. On C.N.R.

**John Masciangelo & Partners—Mine No. 1553**

Mine Office: Delia, Alberta.  
 Overman: John Masciangelo.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 10, Sec. 21, Tp. 30, Rge. 17, W. 4th Mer.  
 Thickness of Seam: 3ft. 9in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 to 60 feet.  
 Form of Opening: Tunnel.  
 Truck mine.

**TABER AREA**

**C. J. Lavenne—Mine No. 672**

Mine Office: Bow Island, Alberta.  
 Overman: C. J. Lavenne.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 3, Sec. 27, Tp. 12, Rge. 10, W. 4th Mer.  
 Thickness of Seam: 5ft. 6in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 135 feet.

**Continental Coal Corporation, Ltd. Mine No. 1334**

Authorized Capital: \$2,000,000.  
 Name of President: C. O. Stee.  
 Names of Directors: N. Vincent, N. W. Campbell, R. Hughes.  
 Name of Sec.-Treas.: G. M. Wilton.  
 Mine Office: Grassy Lake, Alberta.  
 Mine Manager: M. G. Rhynas.  
 Mine Surveyor: A. Williams.  
 Location of Mine: L.S. 3 and 4, Sec. 26, Tp. 9, Rge. 13, W. 4th Mer.  
 Thickness of Seam: 2 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 24 feet.  
 Stripping operation. Truck mine.

**Oliver Coal Mine—Mine No. 1536**

Mine Office: Taber, Alberta.  
 Overman: E. Oliver.  
 Mine Surveyor: J. F. Hamilton.  
 Location of Mine: L.S. 2, Sec. 18, Tp. 10, Rge. 16, W. 4th Mer.  
 Thickness of Seam: 3ft. 8in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: Up to 100 feet.  
 Form of Opening: Drift. Size of Drift: 6ft. by 6ft.

**Western Ventures, Ltd.—Mine No. 1609**

Authorized Capital: \$10,000.  
 Name of President: L. D. M. Baxter.  
 Names of Directors: W. E. Meikle, D. A. B. Murray, J. R. Anderson.  
 Name of Sec.-Treas.: J. S. Macmillan.  
 Head Office: Winnipeg, Manitoba.  
 Mine Office: Taber, Alberta.

Manager: C. S. Robinson.  
 Mine Surveyor: J. P. Harvey.  
 Overman: J. O. C. McDonald.  
 Location of Mine: Sec. 30, Tp. 10, Rge. 16, W. 4th Mer.  
 Thickness of Seam: 3 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 30 feet.  
 Stripping operations.  
 Mine located on C.P.R.

#### TOFIELD AREA

##### Emil Skarin—Mine No. 215

Mine Office: Dodds, Alberta.  
 Overman: A. Ods.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 7, Sec. 14, Tp. 49, Rge. 18, W. 4th Mer.  
 Thickness of Seam:  $3\frac{1}{2}$  to  $7\frac{1}{2}$  feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 19 feet.  
 Stripping operations. Truck mine.

##### Tofield Coal Co., Ltd.—Mine No. 252

Authorized Capital: \$100,000.  
 Name of President: Claude Gallinger.  
 Names of Directors: C. Gallinger, Mrs. Jean Gallinger.  
 Name of Sec.-Treas.: Wilber Gallinger.  
 Mine Office: Tofield, Alberta.  
 General Manager: C. Gallinger.  
 Mine Manager: Norman E. Scott.  
 Mine Surveyor: David Jones.  
 Fireboss: Anton Johnson.  
 Location of Mine: N.  $\frac{1}{2}$ , Sec. 26, Tp. 50, Rge. 19, W. 4th Mer.  
 Thickness of Seam: 5 to 7 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 to 30 feet.  
 C.N.R. and Truck mine.

##### Black Nugget Coal Co., Ltd.— Mine No. 1107

Authorized Capital: \$20,000.  
 Name of President: F. L. Irving.  
 Names of Directors: F. L. Irving, Thos. Watt, Edw. Pierce.  
 Name of Sec.-Treas.: S. H. Roe.  
 Head Office: 507 McLean Building, Calgary, Alberta.  
 Mine Office: Ryley, Alberta.  
 General Manager: F. L. Irving.  
 Mine Manager: Edw. Pierce.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 15, Sec. 11, Tp. 49, Rge. 18, W. 4th Mer.  
 Thickness of Seam: 6 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 10 to 30 feet.  
 Form of Opening: Open pit.  
 Mine located on the C.N.R.

##### Ryley Coal Company—Mine No. 1206

Names of Directors: Mike Zacarchuk, John Posnak, Harry Rudyk, Mike Komarinski.

Mine Office: Ryley, Alberta.  
 Overman: J. J. McDevitt.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 8, Sec. 8, Tp. 49, Rge. 17, W. 4th Mer.  
 Thickness of Seam: 9 to 13 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 14 to 21 feet.  
 Form of Opening: Slope. Size of Slope: 8ft. by 10ft. Depth of Slope: 50 feet.  
 C.N.R. and Truck mine.

##### C. Binder—Mine No. 1624

Mine Office: Ryley, Alberta.  
 Overman: Wm. MacMillan.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 5, Sec. 9, Tp. 49, Rge. 14, W. 4th Mer.  
 Thickness of Seam: 9ft. 9in.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 20 feet.  
 Form of Opening: Slope. Size of Slope: 9ft. by  $6\frac{1}{2}$ ft. Depth of Slope: 85 feet.  
 Truck mine.

#### WESTLOCK AREA

##### Picardville Coal Co.—Mine No. 1523

Mine Office: Picardville, Alberta.  
 Overman: W. Smillie.  
 Mine Surveyor: David Jones.  
 Location of Mine: L.S. 16, Sec. 35, Tp. 58, Rge. 27, W. 4th Mer.  
 Thickness of Seam: 5 feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 40 feet.  
 Form of Opening: Slope. Size of Slope: 10ft. by 8ft. Depth of Slope: 135 feet.  
 Truck mine.

#### WETASKIWIN AREA

##### Peter Gill—Mine No. 1534

Mine Office: Thorsby, Alberta.  
 Overman: Peter Gill.  
 Mine Surveyor: L. C. Stevens.  
 Location of Mine: L.S. 2 and 7, Sec. 3, Tp. 48, Rge. 27, W. 4th Mer.  
 Thickness of Seam:  $6\frac{1}{2}$  feet.  
 Inclination of Seam: Horizontal.  
 Thickness of Cover: 100 feet.  
 Form of Opening: Slope. Size of Slope: 6ft. by 7ft. Depth of Slope: 800 feet.

#### NO AREA

##### Pinto Creek Colls. Ltd. Mine No. 1616

Mine Office: Wembley, Alberta.  
 Fireboss: James E. Brown.  
 Location of Mine: Unsurveyed territory —Tp. 68, Rge. 10, W. 6th Mer.  
 Stripping operation.

The following table gives particulars of mines which were in operation during the year 1946 in the Province:

## LIST OF MINES

Mine No.	Operator	Address	Location LS.S.T.R.M.	Character of Coal	Date of Opening
<b>Ardley Area</b>					
809	J. W. Sissons	Alix	5-33-38-23-4	Sub-bituminous	1919
969	James Blades	Delburne	14-10-38-22-4	Sub-bituminous	1921
1018	A. Anderson	Ardley	3-17-38-23-4	Sub-bituminous	1922
1135	Carl Kurp	Delburne	4-7-38-23-4	Sub-bituminous	1924
1322	John Lyness	Delburne	16-7-38-23-4	Sub-bituminous	1930
1488	Charles M. Russell	Alix	3-29-38-23-4	Sub-bituminous	1935
1586	Kehl & McGladrie	Nevis	4-5-35-37-22-4	Sub-bituminous	1935
1605	Myers & Munro	Ardley	12-35-38-23-4	Sub-bituminous	1942
1613	Wm. Barrell and A. Auvinne	Ardley	10-20-38-23-4	Sub-bituminous	1943
<b>Big Valley Area</b>					
864	Big Valley Coal Company	Big Valley	16-26-35-20-4	Sub-bituminous	1920
1254	Robert Campkin	Lousana	16-12-36-22-4	Sub-bituminous	1927
<b>Brooks Area</b>					
1404	Birmwel Coal, Ltd.	Eyremore	8-15-17-17-4	Sub-bituminous	1932
<b>Camrose Area</b>					
241	Joe Proskow	Dinant	4-18-48-19-4	Sub-bituminous	1910
610	L. Strliczyk	Ohaton	8-10-48-18-4	Sub-bituminous	1915
724	S. H. Burnstad	Ohaton	3-6-14-48-18-4	Sub-bituminous	1944
1420	Red Flame Coal Co., Ltd.	Round Hill	14-19-48-18-4	Sub-bituminous	1933
1524	Geo. Shute & Partners	Dinant	7-48-19-4	Sub-bituminous	1937
1603	Alberta Coal Co., Ltd.	Camrose	2, 6, 7, 10-11-29-46-19-4	Sub-bituminous	1943
<b>Carbon Area</b>					
53	A. Fox (Kneehill Mine)	Carbon	3-14-29-23-4	Sub-bituminous	1898
384	Inland Coal Co., Ltd.	Three Hills	3-36-31-24-4	Sub-bituminous	1906
690	J. W. Rynning	Rowley	4-13-32-21-4	Sub-bituminous	1917
710	East Trochu Coal Co.	Trochu	9-14-33-23-4	Sub-bituminous	1917
817	B. Pickering	Ghost Pine Creek	1-2-6-31-21-4	Sub-bituminous	1919
921	E. Reissig	Trochu	15-14-33-23-4	Sub-bituminous	1921
1060	East Carbon Coal Co.	Carbon	12-13-7-29-22-4	Sub-bituminous	1922
1226	C. C. Campbell	Trochu	9-29-33-22-4	Sub-bituminous	1926

LIST OF MINES—Continued

Mine No.	Operator	Address	Location	Character of Coal	Date of Opening
1283	Halbert Brothers	Trochu	8-14-33-23-4	Sub-bituminous	1928
1359	Balogh Brothers	Carbon	8-13-29-23-4	Sub-bituminous	1931
1499	Nuttall & Davidson	Three Hills	1-9-31-22-4	Sub-bituminous	1936
1538	W. Pastorchik & Partners	Three Hills	10-9-31-22-4	Sub-bituminous	1938
1600	Peerless Coal Co.	Carbon	2-15-29-23-4	Sub-bituminous	1943
1621	Sarcee Coal Co.	Ghost Pine Creek	1-2-6-31-21-4	Sub-bituminous	1944
Cascade Area					
2	The Canmore Mines, Ltd.	Canmore	1-29-24-10-5	Bituminous	1891
1244	Frank Wheatley & Sons	Banff	12-4-26-11-5	Bituminous	1926
Castor Area					
251	John Tyrlak	Heisler	16-28-42-17-4	Sub-bituminous	1910
289	Skaug & Bailey	Gadsby	11-28-39-16-4	Sub-bituminous	1911
291	James Chiswick	Gadsby	11-28-39-16-4	Sub-bituminous	1911
447	C. Johnson	Forestburg	13-28-40-15-4	Sub-bituminous	1914
615	Komperdo & Partners	Heisler	8-9-28-42-17-4	Sub-bituminous	1916
686	Killam Man. Co., Ltd.	Forestburg	16-2-41-16-4	Sub-bituminous	1921
902	O. V. Remillard	Castor	16-33-37-14-4	Sub-bituminous	1921
911	Strickland and Partners	Heisler	1-33-42-17-4	Sub-bituminous	1921
913	Ben Hronek	Heisler	1-7-39-15-4	Sub-bituminous	1921
953	D. H. Witke and Krammer	Forestburg	1-8-32-40-15-4	Sub-bituminous	1921
1046	J. F. Cordel	Halkirk	6-20-40-15-4	Sub-bituminous	1922
1062	Chas. Strader	Halkirk	4-17-39-15-4	Sub-bituminous	1922
1232	J. H. Ainsworth	Halkirk	25-40-16-4	Sub-bituminous	1926
1237	Ruby Glow Coal Mine	Halkirk	11-8-39-15-4	Sub-bituminous	1926
1240	W. T. Phillips & W. J. Phillips	Castor	1-2-4-4-38-14-4	Sub-bituminous	1926
1248	Thomas Mitchinson	Castor	2-3-29-41-17-4	Sub-bituminous	1926
1417	James Easton	Donalda	14-34-37-16-4	Sub-bituminous	1926
1435	E. Lien	Edberg	6-11-2-44-19-4	Sub-bituminous	1933
1441	J. W. Marshall	Donalda	12-16-42-17-4	Sub-bituminous	1933
1541	H. C. Muncy	Foreman	15-26-40-16-4	Sub-bituminous	1938
1572	A. Annonson & Partners	Donalda	4-5-28-41-17-4	Sub-bituminous	1940
1578	Bish Bros	Forestburg	15-36-40-16-4	Sub-bituminous	1941
1587	J. J. Mills	Heisler	5-22-42-17-4	Sub-bituminous	1942
1608	Castor Coal & Construction Co. Ltd.	Castor	11-32-38-15-4	Sub-bituminous	1942
1614	Alfred Sorken	Killam	16-26-40-16-4	Sub-bituminous	1943
1634	F. N. Wiltse	Halkirk	11-32-39-15-4	Sub-bituminous	1945
1639	A. T. Miner	Rosalind	4-43-17-4	Sub-bituminous	1945
1642	J. Bradley & A. O'Brien	Halkirk	14-25-40-16-4	Sub-bituminous	1946
1650	Wm. Jones	Forestburg	10-32-40-15-4	Sub-bituminous	1946



136	George Rhodes	Champion	8-15-22-4	Sub-bituminous	1945
1509	A. M. S. McGaw	Champion	16-33-15-23-4	Sub-bituminous	1937
1565	Mike Popovich	Champion	9- 8-16-23-4	Sub-bituminous	1939
<b>Coalspur Area</b>					
769	Sterling Collieries Co., Ltd.	Sterco	12-35-47-20-5	Bituminous	1918
771	Foothills Collieries Ltd., The	Foothills	10-24-47-20-5	Bituminous	1918
775	Lateside Coals Ltd.	Robb	3-14-48-21-5	Bituminous	1918
846	McLeod River Hard Coal Co. (1941), Ltd.	Mercoal	5-25-48-22-5	Bituminous	1920
1002	Coal Valley Mining Co., Ltd.	Coal Valley	16-26-47-20-5	Bituminous	1922
1157	Bryan Hard Coal Co., Ltd.	Robb	11-15-49-21-5	Bituminous	1924
<b>Crowsnest Area</b>					
87	West Canadian Collieries, Ltd.	Bellevue	10-20- 7- 3-5	Bituminous	1903
88	International Coal & Coke Co., Ltd.	Coleman	11- 8- 8- 4-5	Bituminous	1903
133	Hillcrest-Mohawk Collieries, Ltd.	Bellevue	21- 7- 3-5	Bituminous	1907
199	Matt Wood	Beaver Mines	10- 3- 6- 3-5	Bituminous	1909
204	McGillivray Creek Coal & Coke Co., Ltd.	Coleman	2- 17- 8- 4-5	Bituminous	1909
396	West Canadian Collieries, Ltd.	Blairmore	10- 2- 8- 4-5	Bituminous	1913
1584	West Canadian Collieries, Ltd.	Bellevue	15-31- 6- 5-5	Bituminous	1942
1623	T. O. Neumann	Pincher Creek	5-6-11- 5- 1-5	Bituminous	1945
<b>Drumheller Area</b>					
346	Rosedale Collieries, Ltd.	Rosedale	14-28-28-19-4	Sub-bituminous	1912
367	Midland Coal Mining Co., Ltd.	Drumheller	10-11- 9-29-20-4	Sub-bituminous	1912
402	Red Deer Valley Coal Co., Ltd.	Drumheller	7- 8-28-20-4	Sub-bituminous	1913
422	Commander Coal Company	Drumheller	5- 9-28-20-4	Sub-bituminous	1914
436	Rosedale Collieries, Ltd.	Aerial	7-28-28-19-4	Sub-bituminous	1914
620	Newcastle Collieries, Ltd.	Drumheller	2-29-20-4	Sub-bituminous	1915
728	Maple Leaf Minerals, Ltd.	Drumheller	13-32-27-18-4	Sub-bituminous	1918
844	Ideal Coal Co., Ltd.	Wayne	5-28-18-4	Sub-bituminous	1920
1117	O. W. Whittaker	Beynon	16- 1-28-20-4	Sub-bituminous	1920
1258	Brilliant Coal Co.	Drumheller	3- 6-28-20-4	Sub-bituminous	1923
1299	Sask. Federated Co-ops., Ltd.	East Coulee	11-14-10-29-20-4	Sub-bituminous	1927
1421	Hy-Grade Coal Mining Co., Ltd.	Drumheller	2-32-27-18-4	Sub-bituminous	1929
1484	Regal Coal Co., Ltd.	Drumheller	13-11-29-20-4	Sub-bituminous	1933
1491	Murray Collieries, Ltd.	Drumheller	13-21-27-18-4	Sub-bituminous	1935
1493	Western Gem & Jewel Collieries, Ltd.	Cambria	29-27-18-4	Sub-bituminous	1936
1511	Aetna Coal Company	Drumheller	6-15-28-19-4	Sub-bituminous	1936
1515	H. S. Chambers	Willow Creek	1-22-28-18-4	Sub-bituminous	1937
1520	The Minute Coal Company	Drumheller	10-22-28-18-4	Sub-bituminous	1937
1544	Castle Coal Co., Ltd.	Wayne	7-14-29-20-4	Sub-bituminous	1937
1570	Sovereign Coal Co., Ltd.	Wayne	16- 7-28-18-4	Sub-bituminous	1938
			8- 7-28-19-4	Sub-bituminous	1940

## THE MINES BRANCH

LIST OF MINES—Continued

Mine No.	Operator	Address	Location	LS.S.T.R.M.	Character of Coal	Date of Opening
1573	Monarch Coal Mining Co., Ltd.	Drumheller	N. & S. ½	1-20-27-18-4	Sub-bituminous	1940
1583	John Hamilton	Delia	8- 3- ½	9-23-28-18-4	Sub-bituminous	1942
1589	Arcadia Coal Mines, Ltd.	Willow Creek		16- 7-28-18-4	Sub-bituminous	1943
1599	H. S. Chambers	Drumheller		22-28-18-4	Sub-bituminous	1943
Edmonton Area						
29	E. Woytowich & M. Pozniak (White Star)	Edmonton	S.W. ¼	11-25-51-25-4	Sub-bituminous	1897
91	Ottewell Coal Company	Clover Bar		17-53-23-4	Sub-bituminous	1904
99	Great West Coal Co., Ltd.	Clover Bar		10- 7-53-23-4	Sub-bituminous	1903
129	Sundance Mines, Ltd.	Cardiff		16-23-55-25-4	Sub-bituminous	1907
428	Banner Coals, Ltd.	Cardiff		10- 8-55-24-4	Sub-bituminous	1914
1034	Dolinski, Yaniew and Malk	Edmonton		6-25-51-25-4	Sub-bituminous	1922
1098	Long Coal Company	Edmonton		4-31-54-24-4	Sub-bituminous	1923
1266	Edmonton Collieries, Ltd.	Namao		14-36-54-25-4	Sub-bituminous	1927
1316	Sams Collieries	Namao		11-36-54-25-4	Sub-bituminous	1929
1357	Red Hot Coal Co., Ltd.	Edmonton	R.L. 33 Edmonton	6-13-53-24-4	Sub-bituminous	1931
1366	Beverly Coal, Ltd.	Beverly		36-52-24-4	Sub-bituminous	1931
1393	Ottewell Coal Company	Edmonton	Block X, N.E. ¼	4-25-51-25-4	Sub-bituminous	1932
1419	Opalinski & Fridge(Pine Creek Coal Mine)	Edmonton		4-25-51-25-4	Sub-bituminous	1933
1463	Riverdale Coal Co., Ltd.	Namao	N.E. ¼	3- 6-55-24-4	Sub-bituminous	1934
1496	G. S. Gwilliam	Namao		11-23-51-23-4	Sub-bituminous	1936
1560	K. Nimko	Edmonton		11-23-51-23-4	Sub-bituminous	1939
1582	Egg Lake Coal Co.	Morinville	N.E. ¼	4-36-55-23-4	Sub-bituminous	1941
1626	J. B. Starky Co. Ltd.	Corboudale	S.W. ¼	17-35-24-4	Sub-bituminous	1945
1627	Dickinson, Knight & Dickinson	Corboudale	S.E. ¼	15-23-51-23-4	Sub-bituminous	1945
1628	Blue Point Mine	South Edmonton		8-9- 2-53-21-4	Sub-bituminous	1945
1632	C. F. MacLachlan	Edmonton	N. ¼	1-32-55-25-4	Sub-bituminous	1945
1635	D. Charette	Cardiff		11-14-26-57-25-4	Sub-bituminous	1945
1636	J. Chiarello, F. Chiarello, J. B. St. Martin	Legal		13-25-51-25-4	Sub-bituminous	1946
1641	A. Horzula	South Edmonton			Sub-bituminous	1946
1646	J. G. Mucha	South Edmonton			Sub-bituminous	1946
Gleichen Area						
72	Blackfoot Indians	Gleichen	Indian Reserve	4-29-26-21-4	Sub-bituminous	1902
299	K. J. Schnepf	Rosebud		5-11-25-22-4	Sub-bituminous	1911
1265	Hans Castella & Sons	Standard		3-29-26-21-4	Sub-bituminous	1927
1431	John Guiney	Rosebud		14-20-26-21-4	Sub-bituminous	1933
1521	Wm. McMillan	Rosebud			Sub-bituminous	1937
Halcourt Area						
651	Baldwin Collieries	Grande Prairie		15-35-70- 7-6	Bituminous	1916
1506	Campbell & O'Reilly	Dimsdale	N.W. ¼	2-21-70- 7-6	Bituminous	1937

1539	Dunbar & Partners	Hinton Trail	2-21-70-10-6	Bituminous	1938
1588	Dahl & Cage	Halcourt	14-24-70-11-6	Bituminous	1942
1591	Howarth & Fraser	Halcourt	1-21-70-10-6	Bituminous	1943
1633	Wm. Fraser	Halcourt	8-21-70-10-6	Bituminous	1945
1647	R. O. Johnston & Sons	Grande Prairie	69- 5-6	Bituminous	1946
1651	C. O. Grubb	Hualien	1-18-70- 9-6	Bituminous	1946
<b>Highwood Area</b>					
1625	Allied Industrials	Turner Valley	N.E. ¼ 15-19- 7-5	Bituminous	1945
<b>Lethbridge Area</b>					
56	A. Razzolini	Magrath	3- 7- 7-21-4	Bituminous	1902
738	George Rollinson	Lethbridge	5-12-32- 9-21-4	Bituminous	1909
1086	J. Forsyth & Partners	Lethbridge	5- 8- 7-21-4	Bituminous	1923
1095	J. C. Chester	Lethbridge	9-30- 9-21-4	Bituminous	1923
1219	New Royal View Mine	Lethbridge	12-29- 9-21-4	Bituminous	1925
1263	Lethbridge Collieries, Ltd.	Shaughnessy	11-30-10-21-4	Bituminous	1927
1464	Lethbridge Collieries, Ltd., No. 8 Mine	Lethbridge	3- 2- 9-22-4	Bituminous	1934
1581	J. J. Hamilton Coal Co.	Lethbridge	11-24- 9-22-4	Bituminous	1941
<b>Milk River Area</b>					
1301	Thos. Taylor	Groton	8-9-10-10- 4-11-4	Sub-bituminous	1929
1380	J. J. Mueller	Masinasin	4-29-50-25-5	Sub-bituminous	1931
<b>Morley Area</b>					
1619	B. Ainsley	Morley	Unsurveyed territory	Bituminous	1944
<b>Mountain Park Area</b>					
282	Mountain Park Coals, Ltd.	Mountain Park	33-45-23-5	Bituminous	1911
693	Cadomin Coal Co., Ltd.	Cadomin	14-31-46-23-5	Bituminous	1917
905	Luscar Coals, Ltd.	Luscar	7-23-47-24-5	Bituminous	1921
1631	King's Coal	Cadomin	8-10-11-36-47-24-5	Bituminous	1945
1653	C. M. Woodley & Partners	Hinton	4-29-50-25-5	Bituminous	1946
<b>Nordegg Area</b>					
256	Brazeau Collieries, Ltd.	Nordegg	13-22-40-15-5	Bituminous	1910
<b>Pakowki Area</b>					
1318	W. Raeder	Elkwater	10-23- 8- 3-4	Sub-bituminous	1929
<b>Pekisko Area</b>					
1516	G. C. Davies	Priddis	10- 4-22- 3-5	Bituminous	1937
1610	Ernest Payne	Turner Valley	7-24-19- 6-5	Bituminous	1945

LIST OF MINES—Continued

Mine No.	Operator	Address	Location	LS.S.T.R.M.	Character of Coal	Date of Opening
<b>Pembina Area</b>						
419	Lakeside Coals, Ltd.	Wabamun	S.E. $\frac{1}{4}$	15-9-53-4-5	Sub-bituminous	1913
1409	Gainford Collieries (1946), Ltd.	Gainford	N.W. $\frac{1}{4}$	36-53-6-5	Sub-bituminous	1932
1495	Pembina Collieries, Ltd.	Entwistle	E. $\frac{1}{2}$	34-53-7-5	Sub-bituminous	1936
1592	Mount Royal Collieries, Ltd.	Stony Plain	S.W. Cor.	30-52-4-5	Sub-bituminous	1943
1595	Yellowknife Trans. Co., Ltd.	Genesee	N.W. $\frac{1}{4}$	22-50-3-5	Sub-bituminous	1943
1596	Wm. Robinson	Entwistle		5-34-53-7-5	Sub-bituminous	1944
1630	Lake Isle Mine	Gainford		31-53-5-5	Sub-bituminous	1945
1637	H. H. Wright	Genesee		11-33-49-2-5	Sub-bituminous	1945
1644	Strawberry Creek Coal Co. Ltd.	Warburg	6-11-13-49-3-5	6-11-13-49-3-5	Sub-bituminous	1946
1645	Lothian Collieries	Wabamun	N.W. $\frac{1}{4}$	23-24-49-7-5	Sub-bituminous	1946
1649	K. Schon	Moona Lake		16-25-53-6-5	Sub-bituminous	1946
1652	Larson & Fry	Seba Beach			Sub-bituminous	1946
<b>Pincher Area</b>						
59	Keith Coal Co.	Lundbreck		15-26-7-2-5	Bituminous	1902
1440	W. B. Rhodes	Lundbreck		10-26-7-2-5	Bituminous	1933
<b>Prairie Creek Area</b>						
1296	Jasper Coals, Ltd.	Drinnan	N.W. $\frac{1}{4}$	18-51-24-5	Bituminous	1929
<b>Redcliff Area</b>						
772	Ajax Coal Co.	Medicine Hat		2-5-13-6-4	Sub-bituminous*	1918
<b>Rochester Area</b>						
1517	Thorhild Coal Co.	Thorhild		12-13-12-50-21-4	Sub-bituminous	1937
1562	Tomlinson & Kaszuba	Thorhild		1-11-50-21-4	Sub-bituminous	1939
<b>Saunders Area</b>						
388	Bighorn & Saunders Creek Coll., Ltd.	Saunders	S.E. $\frac{1}{4}$	9-24-40-13-5	Bituminous	1913
852	Alexo Coal Co., Ltd.	Alexo	N.W. $\frac{1}{4}$	9-27-40-13-5	Bituminous	1920
<b>Sheerness Area</b>						
443	Chinook Coal Co., Ltd.	Sheerness		1-12-29-13-4	Sub-bituminous	1914
1314	C. Gatz	Hanna		1-6-29-14-4	Sub-bituminous	1929
1398	T. G. Ironside & A Glover	Scapa		12-5-34-13-4	Sub-bituminous	1932

1401	F. H. Pahl	Hanna	7-30-32-13-4	Sub-bituminous	1932
1432	Sheerness Coal Co., Ltd.	Sheerness	5-19-29-12-4	Sub-bituminous	1933
1553	John Masciangelo & Partners	Della	10-21-30-17-4	Sub-bituminous	1939
1597	Bordula & Partners	Hanna	16-12-29-13-4	Sub-bituminous	1943
<b>Taber Area</b>					
672	C. J. Lavenne	Bow Island	3-27-12-10-4	Sub-bituminous	1916
1334	Southern Alberta Coal Co., Ltd.	Grassy Lake	4-26-9-13-4	Sub-bituminous	1930
1536	Oliver Coal Mine	Taber	2-18-10-16-4	Sub-bituminous	1938
1602	Vulcan Mining & Construction Co.	Vulcan	7-7-21-4	Sub-bituminous	1946
1604	Southern Alberta Coal Co. Ltd.	Taber	12-10-17-4	Sub-bituminous	1943
1609	Southern Alberta Coal Co. Ltd.	Taber	30-10-16-4	Sub-bituminous	1943
<b>Tofield Area</b>					
215	E. Skarin (Dodds Coal Mine)	Dodds	7-14-49-18-4	Sub-bituminous	1909
252	Tofield Coal Co., Ltd.	Tofield	26-50-19-4	Sub-bituminous	1910
1107	Black Nugget Coal Co., Ltd.	Dodds	15-11-49-18-4	Sub-bituminous	1923
1206	Ryley Coal Company	Ryley	8-8-49-17-4	Sub-bituminous	1925
1624	C. Blinder	Ryley	5-9-49-17-4	Sub-bituminous	1944
<b>Westlock Area</b>					
1523	Picardville Coal Co.	Picardville	8-35-58-27-4	Sub-bituminous	1945
<b>Wetaskiwin Area</b>					
1534	Peter Gill	Thorsby	2-7-3-48-27-4	Sub-bituminous	1938
<b>Whitecourt Area</b>					
1569	Alex Watson	Blueridge	16-24-59-11-5	Sub-bituminous	1943
1612	R. F. Pritchard	Blueridge	1-31-59-10-5	Sub-bituminous	
<b>No Area</b>					
1616	Doupe & Doupe	Wembley	Unsurveyed	Bituminous	1943



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Value of annual output of Alberta coal, 1886 to 1945 (inclusive)	25
W	
Waste heap, total coal put on	5, 38
total coal lifted from	38, 41
sub-bituminous coal put on	38, 40, 43, 73
bituminous coal put on	38, 39, 42, 72
sub-bituminous coal lifted from	38, 40, 43, 72
Workmen, number prosecuted	6, 111









